



FYI - 0204 - 01474

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

National Institutes of Health  
National Institute of  
Environmental Health Sciences  
P. O. Box 12233  
Research Triangle Park, NC 27709

January 31, 2004

Document Control Office (7407)  
Attn: TSCA SECTION 8(E) OR ( FYI )  
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Ofc. Of Pollution Prevention & Toxics  
401 M St SW  
Washington, DC 20460-0001

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Dear Document Control Office (7407):

In compliance with the National Toxicology Program's (NTP) mission to keep our colleagues informed of the current NTP findings during ongoing studies, a copy of the Summary Pathology Tables for the chronic inhalation study on DIVINYLBENZENE (1321-74-0) are enclosed for your review.

The NTP assembles a Pathology Working Group to review every study and to resolve any differences between the study laboratory and quality assessment pathology evaluations. Please note that the PWG conclusion of the study results is based solely on the pathology for this study and may not reflect final NTP conclusions. In determining final conclusions, the NTP assesses a broad array of information that includes other results from this study and historical control data.

The Summary Pathology Tables contain the Incidence Rates of Neoplastic and Non-neoplastic Lesion data and the Statistical Analysis of Primary Tumors data pertaining to the laboratory animals. All study data are subject to an NTP retrospective audit and the interpretation may be modified based on the findings.

A wide variety of NTP information is also available in electronic format on the world-wide web, for example, the NTP Annual Plan, abstracts of NTP Reports, study data, and the status of all NTP studies. To view this information requires access to the internet and a Web browser such as Netscape Navigator or Internet Explorer. To access the NTP home page, use the URL <http://ntp-server.niehs.nih.gov/>. Comments on the usefulness of this site and suggestions for improvement are encouraged.

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Hard copies of documents such as NTP Technical Reports, short-term Toxicity Reports, and the Report on Carcinogens are available from the Environmental Health Information Service (EHIS). You can contact EHIS by phone at (919) 541-3841, by fax at (919)541-0273, or by e-mail at [ehis@niehs.nih.gov](mailto:ehis@niehs.nih.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "William Eastin".

William Eastin, Ph.D.  
Head, Information Systems & Central Files  
Environmental Toxicology Program

Encl: Pathology Tables for Rats & Mice

cc:      Central Data Management

## **TR-534 Divinylbenzene**

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### **Pathology Tables - Rats Core Study**

**P03 - Incidence Rates of Non-Neoplastic Lesions**

**P05 - Incidence Rates of Neoplasms by Anatomic Site (systemic lesions abridged)**

**P08 - Statistical Analysis of Primary Tumors**

**P18 - Incidence Rates of Non-Neoplastic Lesions**

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### **Pathology Tables - Mice**

**P03 - Incidence Rates of Non-Neoplastic Lesions**

**P08 - Statistical Analysis of Primary Tumors**

**P10 - Statistical Analysis of Non-Neoplastic Lesions**

**P18 - Incidence Rates of Non-Neoplastic Lesions**

NTP Experiment-Test: 88004-05  
Study Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
DIVINYLBENZENE

Report: PEIRPT03  
Date: 01/31/04  
Time: 15:01:15

Facility: Battelle Northwest

Chemical CAS #: 1321-74-0

Lock Date: 04/16/02

Cage Range: All

Reasons For Removal: All

Removal Date Range: All

Treatment Groups: Include All

a Number of animals examined microscopically at site and number of animals with lesion

NTP Experiment-Test: 88004-05

Study Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
DIVINYLBENZENE

Report: PEIRPT03

Date: 01/31/04

Time: 15:01:15

FISCHER 344 RATS FEMALE	CONTROL	100 PPM	200 PPM	400 PPM
<b>DISPOSITION SUMMARY</b>				
Animals Initially In Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	10	16	14	26
Natural Death	7	3	3	2
Accidentally Killed		1		
Survivors				
Terminal Sacrifice	33	30	33	22
Animals Examined Microscopically	50	50	50	50
<b>ALIMENTARY SYSTEM</b>				
Intestine Large, Colon	(50)	(49)	(49)	(50)
Epithelium, Metaplasia, Focal, Squamous		1 (2%)		
Liver	(50)	(50)	(50)	(50)
Clear Cell Focus	5 (10%)	7 (14%)	6 (12%)	
Hepatodiaphragmatic Nodule	5 (10%)	7 (14%)	6 (12%)	9 (18%)
Necrosis			1 (2%)	
Vacuolization Cytoplasmic	4 (8%)	3 (6%)		
Bile Duct, Hyperplasia			1 (2%)	
Hepatocyte, Regeneration		1 (2%)	1 (2%)	
Periportal, Inflammation, Chronic	3 (6%)	2 (4%)	1 (2%)	2 (4%)
Portal, Bile Stasis	1 (2%)	3 (6%)	2 (4%)	1 (2%)
Serosa, Fibrosis			1 (2%)	
Mesentery	(15)	(20)	(17)	(6)
Necrosis	14 (93%)	20 (100%)	16 (94%)	6 (100%)
Oral Mucosa	(1)			
Pharyngeal, Ulcer	1 (100%)			
Pancreas	(50)	(49)	(50)	(50)
Acinus, Atrophy	3 (6%)	5 (10%)	2 (4%)	4 (8%)
Salivary Glands	(50)	(50)	(50)	(50)
Inflammation, Chronic		1 (2%)		
Stomach, Forestomach	(50)	(50)	(49)	(49)
Hyperplasia, Focal, Squamous		1 (2%)	1 (2%)	
Ulcer	1 (2%)	1 (2%)	1 (2%)	1 (2%)
Stomach, Glandular	(50)	(50)	(49)	(49)
Erosion			1 (2%)	1 (2%)
Ulcer			1 (2%)	1 (2%)
Epithelium, Hyperplasia	1 (2%)		1 (2%)	
Tongue	(1)	(1)	(3)	(3)
Epithelium, Hyperplasia	1 (100%)		3 (100%)	2 (67%)

a Number of animals examined microscopically at site and number of animals with lesion

NTP Experiment-Test: 88004-05  
Study Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
DIVINYLBENZENE

Report: PEIRPT03  
Date: 01/31/04  
Time: 15:01:15

FISCHER 344 RATS FEMALE	CONTROL	100 PPM	200 PPM	400 PPM
ALIMENTARY SYSTEM - CONT				
Tooth		(1)		
Peridental Tissue, Inflammation		1 (100%)		
Pulp, Inflammation, Suppurative		1 (100%)		
CARDIOVASCULAR SYSTEM				
Heart	(50)	(50)	(50)	(50)
Cardiomyopathy		1 (2%)	2 (4%)	3 (6%)
Atrium, Thrombosis				1 (2%)
Pericardium, Infiltration Cellular, Lymphoid				
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(50)
Accessory Adrenal Cortical Nodule		1 (2%)	1 (2%)	
Hemorrhage				1 (2%)
Hyperplasia		1 (2%)		
Necrosis				
Vacuolization Cytoplasmic	14 (28%)	5 (10%)	7 (14%)	12 (24%)
Adrenal Medulla	(50)	(50)	(50)	(50)
Hyperplasia	1 (2%)	1 (2%)	5 (10%)	2 (4%)
Parathyroid Gland	(49)	(49)	(47)	(49)
Hyperplasia			1 (2%)	
Pituitary Gland	(50)	(50)	(50)	(50)
Cyst	6 (12%)	6 (12%)	1 (2%)	5 (10%)
Pars Distalis, Angiectasis	1 (2%)			
Pars Distalis, Hematocyst				1 (2%)
Pars Distalis, Hyperplasia	4 (8%)	8 (16%)	4 (8%)	7 (14%)
Thyroid Gland	(50)	(50)	(50)	(50)
Ultimobranchial Cyst	1 (2%)			
C-Cell, Hyperplasia	5 (10%)	8 (16%)	6 (12%)	1 (2%)
Follicular Cell, Hyperplasia		1 (2%)		1 (2%)
GENERAL BODY SYSTEM				
None				
GENITAL SYSTEM				

a Number of animals examined microscopically at site and number of animals with lesion

NTP Experiment-Test: 88004-05  
Study Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)

Report: PBRPT03  
Date: 01/31/04  
Time: 15:01:15

FISCHER 344 RATS FEMALE		CONTROL	100 PPM	200 PPM	400 PPM
<b>GENITAL SYSTEM - CONT</b>					
Clitoral Gland		(50)	(50)	(50)	(50)
Cyst		3 (6%)	1 (2%)	2 (4%)	2 (4%)
Hyperplasia		1 (2%)	3 (6%)	2 (4%)	2 (4%)
Inflammation, Chronic		2 (4%)	1 (2%)	1 (2%)	1 (2%)
Ovary		(50)	(50)	(50)	(50)
Cyst		5 (10%)	6 (12%)	11 (22%)	4 (8%)
Bilateral, Cyst		1 (2%)			
Uterus		(50)	(50)	(50)	(50)
Hemorrhage					
Necrosis					
Endometrium, Hyperplasia					
Myometrium, Hyperplasia		2 (4%)	1 (2%)	1 (2%)	2 (4%)
Vagina					
Inflammation, Suppurative					
Muscularis, Hypertrophy		(2)	(2)	(3)	
<b>HEMATOPOIETIC SYSTEM</b>					
Bone Marrow		(50)	(50)	(50)	(50)
Myelofibrosis					
Lymph Node		(6)	(10)	(9)	(8)
Deep Cervical, Infiltration Cellular,					
Histiocyte					
Pancreatic, Pigmentation					
Lymph Node, Bronchial		(8)	(9)	(5)	(14)
Infiltration Cellular, Histiocyte					
Lymph Node, Mesenteric					
Infiltration Cellular, Histiocyte		(50)	(50)	(50)	(50)
Pigmentation		2 (4%)	1 (2%)	2 (4%)	
Lymph Node, Mediastinal		(32)	(37)	(44)	
Fibrosis					
Hyperplasia, Lymphoid		1 (3%)	1 (3%)	1 (2%)	
Infiltration Cellular, Histiocyte		2 (6%)	1 (3%)	1 (2%)	
Inflammation, Suppurative		1 (3%)			
Spleen		(50)	(50)	(50)	(50)
Accessory Spleen		2 (4%)	1 (2%)	1 (2%)	
Fibrosis		3 (6%)	1 (2%)	3 (6%)	1 (2%)
Hematopoietic Cell Proliferation					
Hemorrhage		2 (4%)	1 (2%)	1 (2%)	2 (4%)
Hyperplasia, Focal, Lymphoid					
Inflammation, Chronic Active					
Necrosis					

a Number of animals examined microscopically at site and number of animals with lesion

NTP Experiment-Test: 88004-05  
Study Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
DIVINYLBENZENE

Report: PEIRPRO3  
Date: 01/31/04  
Time: 15:01:15

FISCHER 344 RATS FEMALE	CONTROL	100 PPM	200 PPM	400 PPM
HEMATOPOIETIC SYSTEM - CONT				
Thymus	(45)	(41)	(46)	(39)
Cyst				1 (3%)
INTEGUMENTARY SYSTEM				
Mammary Gland	(50) 1 (2%)	(50) 2 (4%)	(50) 1 (2%)	(50) 1 (2%)
Galactocoele				
Hyperplasia				
Inflammation, Chronic				
Skin	(50)	(50) 2 (4%) 1 (2%)	(50) 1 (2%)	(50) 1 (2%)
Cyst Epithelial Inclusion				
Hyperkeratosis				
Inflammation, Granulomatous				
Ulcer	1 (2%)		1 (2%)	1 (2%)
MUSCULOSKELETAL SYSTEM				
Bone	(50)	(50) 1 (2%)	(50) 1 (2%)	(50) 1 (2%)
Joint, Fracture				
Tibia, Fracture				
Skeletal Muscle	(2)	(3) 1 (33%)	(7) 1 (33%)	(5)
Inflammation, Chronic				
Necrosis	1 (50%)			
NERVOUS SYSTEM				
Brain	(50) 9 (18%)	(50) 10 (20%)	(50) 11 (22%)	(50) 7 (14%)
Compression				
Congestion				
Hemorrhage	2 (4%)	2 (4%)	6 (12%)	3 (6%)
Infarct			1 (2%)	
RESPIRATORY SYSTEM				
Larynx	(50)	(50) 1 (2%)	(49) 3 (6%)	(50) 1 (2%)
Foreign Body				
Inflammation, Suppurative				
Epiglottis, Metaplasia, Squamous		1 (2%)		
Lung	(50)	(50)	(50)	(50)

a Number of animals examined microscopically at site and number of animals with lesion

NTP Experiment-Test: 88004-05 INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
 Study Type: CHRONIC DIVINYLBENZENE  
 Route: RESPIRATORY EXPOSURE WHOLE BODY

Report: PEPPT03  
 Date: 01/31/04  
 Time: 15:01:15

FISCHER 344 RATS FEMALE		CONTROL	100 PPM	200 PPM	400 PPM
<b>RESPIRATORY SYSTEM - CONT</b>					
Atrophy	1 (2%)				
Cyst		1 (2%)			
Foreign Body		1 (2%)	1 (2%)	1 (2%)	1 (2%)
Hemorrhage		1 (2%)			
Infiltration	Cellular, Histiocyte	1 (2%)	1 (2%)	1 (2%)	1 (2%)
Infestation	Chronic				
Inflammation	Diffuse				
Inflammation	Chronic, Focal	1 (2%)	22 (44%)	26 (52%)	33 (66%)
Inflammation	Chronic, Focal	27 (54%)	2 (4%)	3 (6%)	1 (2%)
Alveolar Epithelium	Hyperplasia	4 (8%)	1 (2%)	1 (2%)	1 (2%)
Alveolus	Infiltration	1 (2%)	1 (2%)	1 (2%)	1 (2%)
Histiocyte					
Interstitium	Fibrosis	8 (16%)	3 (6%)	6 (12%)	5 (10%)
Mediastinum	Necrosis, Fatty	1 (2%)			
Nose					
Foreign Body		(50)	(50)	(49)	(49)
Inflammation	Suppurative	1 (2%)	5 (10%)	1 (2%)	
Ulcer		5 (10%)	12 (24%)	8 (16%)	7 (14%)
Glands	Dilatation	1 (2%)			
Goblet Cell	Hyperplasia				
Nasolacrimal Duct	Inflammation				
Nasopharyngeal Duct	Inflammation,				
Suppurative					
Olfactory Epithelium	Degeneration				
Olfactory Epithelium	Degeneration, Hyaline	10 (20%)	50 (100%)	49 (100%)	48 (98%)
Olfactory Epithelium	Hyperplasia, Basal Cell		14 (28%)	15 (31%)	4 (8%)
Olfactory Epithelium	Regeneration, Focal	25 (50%)	42 (86%)	45 (92%)	
Respiratory Epithelium	Degeneration	1 (2%)			
Respiratory Epithelium	Hyperplasia	5 (10%)	3 (6%)	4 (8%)	
Respiratory Epithelium	Metaplasia, Squamous	1 (2%)		1 (2%)	
Pleura					
Fibrosis		(50)	(50)	(50)	(49)
Infiltration	Cellular, Lymphoid	1 (2%)			
Trachea					
Glands	Degeneration, Cystic	(50)	(50)	(50)	(50)
<b>SPECIAL SENSES SYSTEM</b>					
Eye					
Atrophy		(50)	(48)	(49)	(49)
Inflammation	Chronic	1 (2%)	1 (2%)	1 (2%)	
Anterior Chamber	Hemorrhage				

a Number of animals examined microscopically at site and number of animals with lesion

NTP Experiment-Test: 88004-05  
Study Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
DIVINYLBENZENE

Report: PEIRPT03  
Date: 01/31/04  
Time: 15:01:15

FISCHER 344 RATS FEMALE	CONTROL	100 PPM	200 PPM	400 PPM
SPECIAL SENSES SYSTEM - CONT'				
Ciliary Body, Inflammation	1 (2%)	1 (2%)		
Cornea, Inflammation	1 (2%)	3 (6%)		
Lens, Cataract	1 (50)	(50)		
Harderian Gland				
Inflammation, Suppurative	1 (2%)			
URINARY SYSTEM				
Kidney	(50)	(50)	(49)	(50)
Cyst				
Nephropathy, Chronic				
Bilateral, Cortex, Renal Tubule, Degeneration	19 (38%)	21 (42%)	19 (39%)	10 (20%)
Cortex, Infarct				
Cortex, Renal Tubule, Accumulation, Hyaline				
Droplet				
Cortex, Renal Tubule, Hyperplasia	1 (2%)	1 (2%)		
Medulla, Renal Tubule, Hyperplasia				
Pelvis, Transitional Epithelium, Hyperplasia	1 (2%)			
Pelvis, Transitional Epithelium,				
Mineralization	1 (2%)			
Renal Tubule, Dilatation	1 (50)	(50)	(49)	(49)
Urinary Bladder				
Transitional Epithelium, Hyperplasia	1 (2%)			

a Number of animals examined microscopically at site and number of animals with lesion

NTP Experiment-Test: 88004-05  
Study Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)

Report: PEPRT03  
Date: 01/31/04  
Time: 15:01:15

		CONTROL	100 PPM	200 PPM	400 PPM
<b>DISPOSITION SUMMARY</b>					
Animals Examined Microscopically		50	50	50	50
Animals Initially In Study		50	50	50	50
Early Deaths					
Moribund Sacrifice		15	9	12	13
Natural Death		4	6	6	5
Survivors		31	35	31	32
Terminal Sacrifice					
Natural Death					
<b>ALIMENTARY SYSTEM</b>					
Esophagus		(50)	(50)	(50)	(50)
Foreign Body					
Intestine Small, Jejunum		(46)	(47)	(47)	(46)
Necrosis			1 (2%)		
Intestine Small, Ileum		(46)	(47)	(45)	(46)
Dilatation					
Liver		(50)	(49)	(50)	(50)
Angiectasis			1 (2%)	1 (2%)	1 (2%)
Clear Cell Focus				1 (2%)	1 (2%)
Hemorrhage					
Hepatodiaphragmatic Nodule		2 (4%)	5 (10%)	4 (8%)	8 (16%)
Inflammation, Granulomatous		1 (2%)	2 (4%)	1 (2%)	
Necrosis		2 (4%)			
Vacuolization Cytoplasmic		1 (2%)	1 (2%)	3 (6%)	2 (4%)
Bile Duct, Hyperplasia		1 (2%)	2 (4%)	3 (6%)	3 (6%)
Repatocyte, Regeneration					
Periportal, Inflammation, Chronic					
Serosa, Fibrosis					
Serosa, Hemorrhage					
Mesentery		(12)	(13)	(18)	(11)
Necrosis		7 (58%)	13 (100%)	18 (100%)	9 (82%)
Fat, Hemorrhage					
Oral Mucosa		(1)		(1)	(4)
Gingival, Cyst					
Gingival, Hyperplasia, Squamous		1 (100%)	(49)	(50)	1 (25%)
Pancreas		(50)			
Thrombosis					
Acinus, Atrophy		15 (30%)	18 (37%)	27 (54%)	21 (42%)
Acinus, Hyperplasia					

a Number of animals examined microscopically at site and number of animals with lesion

NTP Experiment-Test: 88004-05  
Study Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
DIVINYLBENZENE

FISCHER 344 RATS MALE

	CONTROL	100 PPM	200 PPM	400 PPM
ALIMENTARY SYSTEM - CONT				
Acinus, Inflammation	1 (2%)	2 (4%)	3 (6%)	(50)
Duct, Cyst	(50)	1 (2%)		
Stomach, Forestomach				
Diverticulum	1 (2%)			
Hyperplasia, Squamous		1 (2%)		
Inflammation, Suppurative		1 (2%)		
Ulcer	4 (8%)	(48)	1 (2%)	
Stomach, Glandular	(50)			
Erosion		2 (4%)	2 (4%)	(49)
Ulcer	1 (2%)	2 (4%)	1 (2%)	2 (4%)
Epithelium, Hyperplasia	(1)	(1)		1 (2%)
Tongue				
Epithelium, Hyperplasia	1	1 (100%)		
CARDIOVASCULAR SYSTEM				
Blood Vessel	(50)	(50)	(50)	(50)
Thrombosis	1 (2%)			
Heart	(50)	(50)	(50)	(50)
Cardiomyopathy				
Atrium, Thrombosis	7 (14%)	5 (10%)	1 (2%)	1 (2%)
Pericardium, Inflammation	2 (4%)	1 (2%)	2 (4%)	1 (2%)
Pericardium, Pigmentation				
Pericardium, Epicardium, Infiltration				
Cellular, Histiocyte		1 (2%)		
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(50)
Hyperplasia	1 (2%)			2 (4%)
Necrosis		2 (4%)		
Vacuolization Cytoplasmic	8 (16%)	8 (16%)	7 (14%)	6 (12%)
Adrenal Medulla	(50)	(50)	(50)	(50)
Hyperplasia	12 (24%)	13 (26%)	8 (16%)	14 (28%)
Bilateral, Hyperplasia				
Islets, Pancreatic	(50)	(48)	(50)	(50)
Hyperplasia	1 (2%)	1 (2%)	2 (4%)	2 (4%)
Parathyroid Gland	(46)	(48)	(49)	(47)
Hyperplasia	1 (2%)	1 (2%)		
Pituitary Gland	(50)	(50)	(50)	(49)
Cyst	1 (2%)	1 (2%)	1 (2%)	1 (2%)

a Number of animals examined microscopically at site and number of animals with lesion

NTP Experiment-Test: 88004-05  
Study Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
DIVINYLBENZENE

Report: PEIRPT03  
Date: 01/31/04  
Time: 15:01:15

FISCHER 344 RATS MALE		CONTROL	100 PPM	200 PPM	400 PPM
<b>ENDOCRINE SYSTEM - CONT</b>					
Hemorrhage		1 (2%)	1 (2%)	1 (2%)	1 (2%)
Pars Distalis, Hematozyst		5 (10%)	8 (16%)	9 (18%)	8 (16%)
Pars Distalis, Hyperplasia		(50)	(50)	(50)	(49)
Thyroid Gland		2 (4%)	4 (8%)	9 (18%)	7 (14%)
C-Cell, Hyperplasia					
Follicular Cell, Hyperplasia					
<b>GENERAL BODY SYSTEM</b>					
None					
<b>GENITAL SYSTEM</b>					
Penis					
Inflammation					
Preputial Gland					
Cyst					
Hyperplasia					
Prostate					
Hyperplasia					
Seminal Vesicle					
Inflammation, Suppurative					
Dilatation					
Hyperplasia					
Testes					
Inflammation, Suppurative					
Artery, Inflammation, Chronic Active					
Germinal Epithelium, Atrophy					
Interstitial Cell, Hyperplasia					
<b>HEMATOPOIETIC SYSTEM</b>					
Lymph Node					
Deep Cervical, Angiectasis					
Deep Cervical, Cyst					
Deep Cervical, Hemorrhage					
Deep Cervical, Hyperplasia, Lymphoid					
Pancreatic, Ectasia					
Pancreatic, Hemorrhage					
Pancreatic, Infiltration Cellular, Histiocyte					

a Number of animals examined microscopically at site and number of animals with lesion

NTP Experiment-Test: 88004-05  
 Study Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)

Report: PEIRPT03  
 Date: 01/31/04  
 Time: 15:01:15

FISCHER 344 RATS MALE

CONTROL    100 PPM    200 PPM    400 PPM

HEMATOPOIETIC SYSTEM - CONT				
Lymph Node, Bronchial	(7)	(6)	(12)	(5)
Hemorrhage				1 (20%)
Infiltration Cellular				1 (20%)
Pigmentation	(49)	(49)	(50)	1 (20%)
Lymph Node, Mesenteric	1 (2%)	1 (2%)		(50)
Angiectasis				
Ectasia				
Hemorrhage				1 (2%)
Hyperplasia, Lymphoid	1 (2%)		1 (2%)	
Infiltration Cellular		1 (2%)	1 (2%)	
Lymph Node, Mediastinal	(19)	(23)	(25)	3 (6%)
Angiectasis				(38)
Hyperplasia, Lymphoid				1 (3%)
Spleen	(50)	(49)	(50)	1 (3%)
Accessory Spleen		3 (6%)		(50)
Fibrosis	2 (4%)	6 (12%)	4 (8%)	1 (2%)
Hematopoietic Cell Proliferation				1 (2%)
Hemorrhage				1 (2%)
Hyperplasia, Focal, Lymphoid		2 (4%)	1 (2%)	1 (2%)
Necrosis	3 (6%)	1 (2%)	1 (2%)	
Lymphocyte, Hyperplasia, Diffuse	1 (2%)	1 (2%)	1 (2%)	
Thymus	(48)	(44)	(46)	1 (2%)
Hemorrhage			1 (2%)	(42)

INTEGUMENTARY SYSTEM

Mammary Gland	(35)	(43)	(47)	(48)
Galactocele	3 (9%)	2 (5%)	6 (13%)	3 (6%)
Skin	(50)	(50)	(50)	(50)
Cyst Epithelial Inclusion	4 (8%)	1 (2%)	3 (6%)	2 (4%)
Hyperkeratosis	2 (4%)	1 (2%)	2 (4%)	
Inflammation, Acute			2 (4%)	
Inflammation, Granulomatous				1 (2%)
Ulcer			2 (4%)	
Subcutaneous Tissue, Thrombosis			1 (2%)	

MUSCULOSKELETAL SYSTEM

Bone	(50)	(50)	(50)	(50)
Hyperostosis				1 (2%)
Cartilage, Femur, Hyperplasia				

a Number of animals examined microscopically at site and number of animals with lesion

NTP Experiment-Test: 88004-05  
Study Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
DIVINYLBENZENE

Report: PEIRPT03  
Date: 01/31/04  
Time: 15:01:15

FISCHER 344 RATS MALE		CONTROL	100 PPM	200 PPM	400 PPM
<b>MUSCULOSKELETAL SYSTEM - CONT</b>					
Femur, Fracture					
			1 (2%)		
<b>NERVOUS SYSTEM</b>					
Brain					
Compression		(49)	(50)	(50)	(50)
Gliosis		10 (20%)	5 (10%)	8 (16%)	6 (12%)
Hemorrhage			1 (2%)		1 (2%)
<b>RESPIRATORY SYSTEM</b>					
Larynx					
Foreign Body		(49)	(49)	(50)	(49)
Inflammation, Suppurative		1 (2%)	2 (4%)	3 (6%)	2 (4%)
Epiglottis, Metaplasia, Squamous			1 (2%)	1 (2%)	1 (2%)
Lung					
Congestion		(50)	(50)	(50)	(50)
Hemorrhage		2 (4%)	1 (2%)	4 (8%)	4 (8%)
Inflammation, Chronic					
Inflammation, Chronic, Diffuse					
Inflammation, Chronic, Focal					
Inflammation, Suppurative					
Necrosis					
Thrombosis					
Alveolar Epithelium, Hyperplasia					
Alveolar Epithelium, Hypertrophy					
Alveolus, Hypertrophy					
Alveolus, Infiltration Cellular, Focal,					
Histiocyte					
Interstitium, Fibrosis		9 (18%)	12 (24%)	11 (22%)	4 (8%)
Mediastinum, Abscess		1 (2%)	1 (2%)	1 (2%)	1 (2%)
Mediastinum, Inflammation, Chronic		1 (2%)			
Mediastinum, Pigmentation					
Perivascular, Edema					
Perivasculär, Infiltration Cellular,					
Nose					
Foreign Body		(50)	(48)	(50)	(49)
Inflammation, Suppurative		5 (10%)	1 (2%)	3 (6%)	1 (2%)
Glands, Dilatation		5 (10%)	9 (19%)	17 (34%)	10 (20%)
Goblet Cell, Hyperplasia		3 (6%)	30 (63%)	48 (96%)	46 (94%)
a Number of animals examined microscopically at site and number of animals with lesion		1 (2%)	7 (14%)	16 (33%)	

NTP Experiment-Test: 88004-05      INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
 Study Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY

Report: PEIRPT03  
 Date: 01/31/04  
 Time: 15:01:15  
 DIVINYLBENZENE

FISCHER 344 RATS MALE	CONTROL	100 PPM	200 PPM	400 PPM
RESPIRATORY SYSTEM - CONT'				
Nasolacrimal Duct, Inflammation	2 (4%)	6 (13%)	1 (2%)	4 (8%)
Nasopharyngeal Duct, Cyst				1 (2%)
Nasopharyngeal Duct, Foreign Body				1 (2%)
Nasopharyngeal Duct, Inflammation,			1 (2%)	
Nasopharyngeal Duct, Respiratory Epithelium,				1 (2%)
Hyperplasia				
Olfactory Epithelium, Degeneration	4 (8%)	47 (98%)	49 (98%)	49 (100%)
Olfactory Epithelium, Degeneration		21 (44%)	2 (4%)	1 (2%)
Olfactory Epithelium, Hyperplasia, Basal Cell		1 (2%)	44 (88%)	48 (98%)
Olfactory Epithelium, Metaplasia				2 (4%)
Respiratory Epithelium, Hyperplasia				
Turbinate, Cyst	1 (2%)	1 (2%)		
Pleura	(50)	(50)	(50)	(50)
Mesothelium, Hyperplasia			1 (2%)	
Trachea	(50)	(49)	(50)	(49)
Glands, Degeneration, Cystic	1 (2%)			5 (10%)
SPECIAL SENSES SYSTEM				
Eye	(50)	(48)	(48)	(49)
Anterior Chamber, Hemorrhage			1 (2%)	
Cornea, Mineralization			3 (6%)	1 (2%)
Lens, Cataract				1 (2%)
Retina, Atrophy	2 (4%)	1 (2%)		
Harderian Gland	(50)	(50)	(50)	(50)
Atrophy			1 (2%)	
Zymbal's Gland	(1)		(3)	
Inflammation, Suppurative			1 (33%)	
URINARY SYSTEM				
Kidney	(50)	(49)	(50)	(49)
Cyst		1 (2%)		1 (2%)
Nephropathy, Chronic		41 (84%)	41 (82%)	45 (92%)
Cortex, Infarct	1 (2%)	1 (2%)		
Cortex, Renal Tubule, Degeneration				1 (2%)
Cortex, Renal Tubule, Hyperplasia				2 (4%)
Cortex, Renal Tubule, Hypertrophy				2 (4%)
Medulla, Infarct			1 (2%)	
Medulla, Infiltration Cellular, Lipocyte			1 (2%)	

a Number of animals examined microscopically at site and number of animals with lesion

NTP Experiment-Test: 88004-05      INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)

Study Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

DIVINYLBENZENE

Report: PERIRPT03  
Date: 01/31/04  
Time: 15:01:15

FISCHER 344 RATS MALE

	CONTROL	100 PPM	200 PPM	400 PPM
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URINARY SYSTEM - CONT				
Papilla, Renal Tubule, Dilatation				
Pelvis, Transitional Epithelium, Hyperplasia	1 (2%)	1 (2%)		1 (2%)
Pelvis, Transitional Epithelium,				
Mineralization				
Urethra				
Transitional Epithelium, Hyperplasia				
Urinary Bladder	(50)	(49)		
Calculus Micro Observation Only	4 (8%)	2 (4%)		
Hemorrhage	2 (4%)	1 (2%)		
Transitional Epithelium, Hyperplasia				

a Number of animals examined microscopically at site and number of animals with lesion

END OF REPORT

NTP Experiment-Test: 88004-05 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)  
Study Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY  
Chemical: DIVINYLBENZENE

Report: PEIRPT05  
Date: 01/31/04  
Time: 15:01:15

Facility: Battelle Northwest  
Chemical CAS #: 1321-74-0  
Lock Date: 04/16/02  
Cage Range: All  
Reasons For Removal: All  
Removal Date Range: All  
Treatment Groups: Include All

a Number of animals examined microscopically at site and number of animals with lesion  
Page 1

NTP Experiment-Test: 88004-05 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)  
 Study Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY

Report: PEIRPT05  
 Date: 01/31/04  
 Time: 15:01:15

FISCHER 344 RATS FEMALE	CONTROL	100 PPM	200 PPM	400 PPM
<b>DISPOSITION SUMMARY</b>				
Animals Initially in Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	10	16	14	26
Natural Death	7	3	3	2
Accidentally Killed				
Survivors	1	1		
Terminal Sacrifice				
Animals Examined Microscopically	33	30	33	22
	50	50	50	50
<b>ALIMENTARY SYSTEM</b>				
Esophagus	(50)	(50)	(50)	(50)
Carcinoma, Metastatic, Zymbal's Gland	1 (2%)			
Liver	(50)	(50)	(50)	(50)
Hepatocellular Carcinoma				
Hepatocellular Adenoma		2 (4%)		
Hepatocellular Adenoma, Multiple				
Histiocytic Sarcoma, Metastatic, Spleen			2 (4%)	
Mesentery	1 (2%)			
Carcinoma, Metastatic, Liver	(15)	(20)	(17)	(6)
Pancreas				
Tongue	(50)	(49)	(50)	(50)
Squamous Cell Papilloma	(1)	(1)	(3)	(3)
	1 (100%)	1 (100%)	1 (33%)	
<b>CARDIOVASCULAR SYSTEM</b>				
None				
<b>ENDOCRINE SYSTEM</b>				
Adrenal Cortex	(50)	(50)	(50)	(50)
Carcinoma				
Carcinoma, Metastatic, Mammary Gland		1 (2%)		
Carcinoma, Metastatic, Zymbal's Gland	1 (2%)			
Adrenal Medulla	(50)	(50)	(50)	(50)
Pheochromocytoma Malignant				
Pheochromocytoma Benign	2 (4%)	2 (4%)	1 (2%)	1 (2%)
			3 (6%)	1 (2%)

NTP Experiment-Test: 88004-05 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)  
 Study Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY

Report: PERPRT05  
 Date: 01/31/04  
 Time: 15:01:15

FISCHER 344 RATS FEMALE

CONTROL    100 PPM    200 PPM    400 PPM

ENDOCRINE SYSTEM - cont				
Bilateral, Pheochromocytoma	Benign	(50)	(50)	(50) 1 (2%)
Islets, Pancreatic		1 (2%)		(50) 1 (2%)
Adenoma				1 (2%)
Carcinoma				1 (2%)
Pituitary Gland				(50) 1 (2%)
Pars Distalis, Adenoma		(50) 37 (74%)	(50) 39 (68%)	(50) 28 (56%)
Thyroid Gland		(50) 1 (2%)	(50) 5 (10%)	(50) 4 (8%)
Garnoina, Metastatic, Zymbal's Gland		1 (2%)	5 (10%)	1 (2%)
C-Cell, Adenoma				
C-Cell, Carcinoma				

GENERAL BODY SYSTEM

None

GENITAL SYSTEM

Clitoral Gland		(50)	(50)	(50) 1 (2%)
Carcinoma				(50)
Ovary		(50)	(50)	(50)
Granulosa Cell Tumor	Benign	1 (2%)	(50)	(50)
Uterus		(50) 1 (2%)	(50)	(50)
Adenoma				
Carcinoma				
Polyp Stromal				
Sarcoma Stromal				
Schwannoma Malignant				
Bilateral, Polyp Stromal				
Cervix, Sarcoma Stromal				
Vagina				
Sarcoma		(2) 1 (50%)	(3)	

HEMATOPOIETIC SYSTEM

Lymph Node		(6)	(10)	(9) (8)
Deep Cervical, Carcinoma, Metastatic,		1 (17%)		
Zymbal's Gland				
Pancreatic, Carcinoma, Metastatic, Mammary				
Gland				
Pancreatic, Histiocytic Sarcoma, Metastatic,				

NTP Experiment-Test: 88004-05 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)  
 Study Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY

Report: PEIRPT05  
 Date: 01/31/04  
 Time: 15:01:15

FISCHER 344 RATS FEMALE		CONTROL	100 PPM	200 PPM	400 PPM
<b>HEMATOPOIETIC SYSTEM - cont</b>					
Spleen	1 (17%)	(8)	(9)	(5)	(14)
Lymph Node, Bronchial		(3)	(1)	(5)	(3)
Lymph Node, Mandibular		(50)	(50)	(50)	(50)
Lymph Node, Mesenteric		(32)	(37)	(44)	(34)
Lymph Node, Mediastinal					
Carcinoma, Metastatic, Mammary Gland	1 (3%)		1 (3%)		
Carcinoma, Metastatic, Zymbal's Gland		(50)	(50)	(50)	(50)
Spleen					
Histiocytic Sarcoma	1 (2%)				
Thymus		(45)	(41)	(46)	(39)
Thymoma Malignant			1 (2%)	1 (2%)	
<b>INTEGUMENTARY SYSTEM</b>					
Mammary Gland		(50)	(50)	(50)	(50)
Adenoma			1 (2%)		
Carcinoma, Multiple	3 (6%)	4 (8%)	3 (6%)		
Fibroadenoma		1 (2%)	1 (2%)	1 (2%)	
Fibroadenoma, Multiple	14 (28%)	14 (28%)	13 (26%)	9 (18%)	
Skin	6 (12%)	8 (16%)	6 (12%)	5 (10%)	
Basal Cell Carcinoma		(50)	(50)		
Subcutaneous Tissue, Histiocytic Sarcoma	1 (2%)	1 (2%)			
Subcutaneous Tissue, Lipoma			1 (2%)	1 (2%)	
<b>MUSCULOSKELETAL SYSTEM</b>					
Bone		(50)	(50)	(50)	(50)
Femur, Osteosarcoma					
Vertebra, Osteosarcoma		1 (2%)		1 (2%)	
<b>NERVOUS SYSTEM</b>					
Brain		(50)	(50)	(50)	(50)
Astrocytoma Malignant			1 (2%)	1 (2%)	

NTP Experiment-Test: 88004-05 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Study Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Report: PERIRPT05  
Date: 01/31/04  
Time: 15:01:15

FISCHER 344 RATS FEMALE	CONTROL	100 PPM	200 PPM	400 PPM
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#### RESPIRATORY SYSTEM

Larynx				
Carcinoma, Metastatic, Thyroid Gland	(50)	(50)	(49)	(50)
Carcinoma, Zymbal's Gland	1 (2%)	1 (2%)		
Lung	(50)	(50)		
Alveolar/Bronchiolar Adenoma	1 (2%)	1 (2%)	2 (4%)	
Carcinoma, Metastatic, Liver				
Carcinoma, Mammary Gland				
Carcinoma, Metastatic, Thyroid Gland	1 (2%)	1 (2%)		
Osteosarcoma, Metastatic, Zymbal's Gland	(50)	(50)	(49)	1 (2%)
Nose				
Respiratory Epithelium, Adenoma	(50)	(50)	(50)	1 (2%)
Pleura				
Osteosarcoma, Metastatic, Bone	(50)	(50)	(49)	1 (2%)
Trachea				
Carcinoma, Metastatic, Zymbal's Gland	(50)	(50)	(50)	1 (2%)

#### SPECIAL SENSES SYSTEM

Eye				
Carcinoma, Metastatic, Zymbal's Gland	(50)	(48)	(49)	(49)
Harderian Gland	1 (2%)	1 (2%)		
Adenoma	(50)	(50)	(50)	1 (2%)
Zymbal's Gland	1 (2%)	1 (2%)		
Carcinoma	(1)	(1)	2 (100%)	

#### URINARY SYSTEM

Kidney				
Osteosarcoma, Metastatic, Bone	(50)	(50)	(49)	(50)
Urinary Bladder				
Transitional Epithelium, Carcinoma	(50)	(50)	(49)	1 (2%)

NTP Experiment-Test: 88004-05 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)  
Study Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY

Report: PEIRPT05  
Date: 01/31/04  
Time: 15:01:15

FISCHER 344 RATS FEMALE	CONTROL	100 PPM	200 PPM	400 PPM
SYSTEMIC LESIONS				
Multiple Organs	* (50)	* (50)	* (50)	* (50)
Histiocytic Sarcoma	2 (4%)			
Leukemia Mononuclear	10 (20%)	18 (36%)	22 (44%)	22 (44%)

\* Number of animals with any tissue examined microscopically

NTP Experiment-Test: 88004-05 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)  
Study Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY

Report: PEIRPT05  
Date: 01/31/04  
Time: 15:01:15

FISCHER 344 RATS FEMALE	CONTROL	100 PPM	200 PPM	400 PPM
TUMOR SUMMARY				
Total Animals with Primary Neoplasms (b)	46	46	49	47
Total Primary Neoplasms	87	104	107	90
Total Animals with Benign Neoplasms	43	42	45	36
Total Benign Neoplasms	70	74	74	61
Total Animals with Malignant Neoplasms	17	27	28	27
Total Malignant Neoplasms	17	30	33	29
Total Animals with Metastatic Neoplasms	3	2	2	1
Total Metastatic Neoplasm	13	5	3	3
Total Animals with Malignant Neoplasms Uncertain Primary Site				
Total Animals with Neoplasms Uncertain- Benign or Malignant				
Total Uncertain Neoplasms				

a Number of animals examined microscopically at site and number of animals with lesion

b Primary tumors: all tumors except metastatic tumors

NTP Experiment-Test: 88004-05 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)  
Study Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY

Report: PEIRPT05  
Date: 01/31/04  
Time: 15:01:15

FISCHER 344 RATS MALE	CONTROL	100 PPM	200 PPM	400 PPM
DISPOSITION SUMMARY				
Animals Initially in Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	15	9	12	13
Natural Death	4	6	6	5
Survivors				
Terminal Sacrifice	31	35	31	32
Natural Death			1	
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Intestine Large, Rectum	(48)	(48)	(48)	(49)
Adenoma		1 (2%)		
PolyP Adenomatous			1 (2%)	
Intestine Large, Cecum	(47)	(48)	(46)	(49)
PolyP Adenomatous		1 (2%)		
Intestine Small, Jejunum	(46)	(47)	(47)	(46)
Histiocytic Sarcoma, Metastatic, Mesentery	1 (2%)			
Intestine Small, Ileum	(46)	(47)	(45)	(46)
Fibrosarcoma				1 (2%)
Liver	(50)	(49)	(50)	(50)
Carcinoma, Metastatic, Islets, Pancreatic				
Fibrous Histiocytoma, Metastatic, Skin				
Osteosarcoma, Metastatic, Bone		1 (2%)		1 (2%)
Osteosarcoma, Metastatic, Uncertain Primary Site	1 (2%)			1 (2%)
Pheochromocytoma Malignant, Metastatic,				
Adrenal Medulla	(12)	(13)	1 (2%)	(11)
Mesentery				1 (9%)
Carcinoma, Metastatic, Kidney				
Histiocytic Sarcoma	1 (8%)			
Leiomysarcoma, Metastatic, Stomach, Glandular				
Oral Mucosa	1 (8%)			
Pharyngeal, Squamous Cell Papilloma	(1)			
Pancreas	(50)	(49)	(50)	(50)
Carcinoma, Metastatic, Kidney				1 (25%)
Fibrous Histiocytoma, Metastatic, Skin			1 (2%)	1 (28%)
Histiocytic Sarcoma, Metastatic, Mesentery	1 (2%)			

NTP Experiment-Test: 88004-05 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)  
 Study Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY

Report: PERPRT05  
 Date: 01/31/04  
 Time: 15:01:15

FISCHER 344 RATS MALE		CONTROL	100 PPM	200 PPM	400 PPM
<b>ALIMENTARY SYSTEM - cont</b>					
Leiomyosarcoma, Metastatic, Stomach,		1 (2%)			
Glandular					
Acinus, Adenoma					
Stomach, Forestomach					
Histiocytic Sarcoma, Metastatic, Mesentery	(50)	(48)	(50)	(50)	(50)
Stomach, Glandular	1 (2%)	(48)	(50)	(50)	(49)
Leiomyosarcoma	1 (2%)	(1)			
Tongue	1 (100%)				
Squamous Cell Papilloma					
<b>CARDIOVASCULAR SYSTEM</b>					
Blood Vessel	(50)	(50)	(50)	(50)	(50)
Heart	(50)	(50)	(50)	(50)	(50)
<b>ENDOCRINE SYSTEM</b>					
Adrenal Cortex	(50)	(50)	(50)	(50)	(50)
Carcinoma, Metastatic, Kidney	1 (2%)				
Osteosarcoma, Metastatic, Bone	(50)	(50)	(50)	(50)	(50)
Adrenal Medulla	(50)	(50)	(50)	(50)	(50)
Osteosarcoma, Metastatic, Bone	1 (2%)	2 (4%)	2 (4%)	1 (2%)	1 (2%)
Pheochromocytoma Malignant	1 (2%)	3 (6%)	8 (16%)	7 (14%)	
Pheochromocytoma Benign	12 (24%)	1 (2%)	1 (2%)		
Bilateral, Pheochromocytoma Benign	1 (2%)				
Islets, Pancreatic	(50)	(48)	(50)	(50)	(50)
Adenoma	5 (10%)	8 (17%)	2 (4%)	9 (18%)	
Carcinoma	1 (2%)		1 (2%)	1 (2%)	
Pituitary Gland	(50)	(50)	(50)	(49)	
Pars Distalis, Adenoma	36 (72%)	30 (60%)	31 (62%)	29 (59%)	
Pars Distalis, Ganglioneuroma				1 (2%)	
Pars Intermedia, Adenoma		2 (4%)			
Thyroid Gland	(50)	(50)	(50)	(49)	
C-Cell, Adenoma	2 (4%)	5 (10%)	2 (4%)	2 (4%)	
C-Cell, Carcinoma	1 (2%)				
Follicular Cell, Adenoma	1 (2%)			1 (2%)	

NTP Experiment-Test: 88004-05 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)  
 Study Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY

Report: PEIRPT05  
 Date: 01/31/04  
 Time: 15:01:15

FISCHER 344 RATS MALE		CONTROL	100 PPM	200 PPM	400 PPM
<b>GENERAL BODY SYSTEM</b>					
Peritoneum	Carcinoma, Metastatic, Kidney	(40)	(49)	(50)	(49)
Histiocytic Sarcoma	Mesentery	1 (3%)		1 (2%)	
<b>GENITAL SYSTEM</b>					
Epididymis		(50)	(50)	(50)	(50)
Preputial Gland		(48)	(50)	(50)	(49)
Adenoma			1 (2%)	1 (2%)	1 (2%)
Carcinoma			1 (2%)	1 (2%)	1 (2%)
Prostate		(50)	(50)	(50)	(50)
Carcinoma, Metastatic, Kidney					
Histiocytic Sarcoma, Mesentery		1 (2%)			
Seminal Vesicle		(50)	(49)	(50)	(50)
Carcinoma, Metastatic, Kidney					
Histiocytic Sarcoma, Mesentery		1 (2%)			
Testes		(50)	(50)	(50)	(50)
Bilateral, Interstitial Cell, Adenoma		20 (40%)	32 (64%)	27 (54%)	32 (64%)
Interstitial Cell, Adenoma		18 (36%)	13 (26%)	16 (32%)	10 (20%)
<b>HEMATOPOIETIC SYSTEM</b>					
Bone Marrow		(50)	(50)	(50)	(50)
Fibrous Histiocytoma, Metastatic, Skin			1 (2%)		
Lymph Node		(11)	(5)	(11)	(6)
Lymph Node, Bronchial		(7)	(6)	(12)	(5)
Lymph Node, Mesenteric		(49)	(49)	(50)	(50)
Carcinoma, Metastatic, Kidney					
Sarcoma		1 (2%)			
Lymph Node, Mediastinal		(19)	(23)	(25)	(38)
Carcinoma, Metastatic, Kidney					
Spleen		(50)	(49)	(50)	(50)
Carcinoma, Metastatic, Kidney					
Fibrous Histiocytoma, Metastatic, Skin			1 (2%)	1 (3%)	
Histiocytic Sarcoma, Metastatic, Mesentery		1 (2%)		1 (2%)	
Thymus		(48)	(44)	(46)	(42)

05 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Report: PEIRPT05  
Date: 01/31/04  
Time: 15:01:15

Report: PEIRPT05  
Date: 01/31/04  
Time: 15:01:15

WHOLE BODY

ALE CONTROL 100 PPM 200 PPM 400 PPM

	(35)	(43) 1 (2%)	(47)	(48)
e	1 (3%)	1 (2%)	1 (2%)	1 (2%)
ma	1 (3%)	5 (11%)	1 (2%)	1 (2%)
Fibroma	(50)	(50)	(50)	(50)
Fibrous Histiocytoma	1 (2%)	1 (2%)	1 (2%)	1 (2%)
Fibrous Histiocytoma, Metastatic, Skin	1 (10%)	7 (14%)	4 (8%)	3 (6%)
Lipoma	1 (2%)	1 (2%)	1 (2%)	1 (2%)
Myxoma	1 (2%)	1 (2%)	1 (2%)	1 (2%)
arcoma	(50)	(50) 1 (2%)	(50)	(50)
Kidney	1 (2%)	(6)	(1)	(4) 1 (25%)
Metastatic, Skin	1 (17%)	1 (17%)		
ignant	(49)	(50) 1 (2%)	(50) 2 (4%) 1 (2%)	(50)
Adenoma	(50)	(50) 1 (2%)	(50)	(50)
Adenoma, Multiple , Kidney	1 (2%)	1 (2%)	1 (2%)	1 (2%)

NTP Experiment-Test: 88004-05 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)  
Study Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY

Report: PEIRPT05  
Date: 01/31/04  
Time: 15:01:15

FISCHER 344 RATS MALE	CONTROL	100 PPM	200 PPM	400 PPM
TUMOR SUMMARY				
Total Animals with Primary Neoplasms (b)	50	49	49	49
Total Primary Neoplasms	140	130	125	123
Total Animals with Benign Neoplasms	49	49	48	48
Total Benign Neoplasms	104	107	99	103
Total Animals with Malignant Neoplasms	29	20	24	18
Total Malignant Neoplasms	36	23	26	20
Total Animals with Metastatic Neoplasms	5	3	1	3
Total Metastatic Neoplasm	19	10	1	15
Total Animals with Malignant Neoplasms Uncertain Primary Site		1		
Total Animals with Neoplasms Uncertain- Benign or Malignant				
Total Uncertain Neoplasms				

a Number of animals examined microscopically at site and number of animals with lesion

b Primary tumors: all tumors except metastatic tumors

END OF REPORT

NTP  
LAB: Battelle Northwest  
EXPERIMENT: 88004 TEST: 05  
TEST TYPE: CHRONIC  
CONT: NO1-ES-75410  
PATHOLOGIST: RENNE, ROGER

STATISTICAL ANALYSIS OF PRIMARY TUMORS  
DIVINYLBENZENE

REPORT: PETRPT08  
DATE: 01/31/04  
TIME: 15:01:24  
PAGE: 1  
NTP C#: 88004B  
CAS: 1321-74-0

REASONS FOR REMOVAL: ALL

REMOVAL DATE RANGE: ALL  
TREATMENT GROUPS: INCLUDE ALL

STATISTICAL ANALYSIS OF PRIMARY TUMORS  
DIVINYLBENZENE

NTP  
LAB: Battelle Northwest  
EXPERIMENT: 88004 TEST: 05  
TEST TYPE: CHRONIC  
CONT: N01-ES-75410  
PATHOLOGIST: RENNE, ROGER  
Rats (FISCHER 344)

ROUTE: RESPIRATORY EXPOSURE WHOLE BODY  
FOR ALL DOSES THE TUMOR RATES IN THE FOLLOWING TISSUES/ORGANS ARE  
BASED ON NUMBER OF TISSUES EXAMINED. IN OTHER TISSUES/ORGANS RATES  
ARE BASED ON THE NUMBER OF ANIMALS NECROPSIED.

Adrenal Cortex  
Adrenal Medulla  
Brain  
Clitoral/Preputial Gland  
Islets, Pancreatic  
Kidney  
Liver  
Lung  
Nose  
Ovary  
Pancreas  
Pituitary Gland  
Testes  
Thymus  
Thyroid Gland  
Urinary Bladder

REPORT: PEIRPT08  
DATE: 01/31/04  
TIME: 15:01:24  
NTP C#: 88004B  
CAS: 1321-74-0

NTP  
LAB: Battelle Northwest  
EXPERIMENT: 88004 TEST: 05  
TEST TYPE: CHRONIC  
CONT: NO1-ES-75410  
PATHOLOGIST: RENNE, ROGER

STATISTICAL ANALYSIS OF PRIMARY TUMORS  
DIVINYLBENZENE

REPORT: PEIRPT08  
DATE: 01/31/04  
TIME: 15:01:24  
NTP C#: 88004B  
CAS: 1321-74-0

SUMMARY OF STATISTICALLY SIGNIFICANT ( $P \leq .05$ ) RESULTS  
IN THE ANALYSIS OF  
DIVINYLBENZENE

=====  
Male Rats

Organ

Adrenal Medulla

Kidney: Renal Tubule

Skin

All Organs

=====  
Female Rats

Organ

Lung

Mammary Gland

Pituitary Gland: Pars Distalis or Unspecified Site

Thyroid Gland: C-Cell

All Organs

Morphology

=====  
All Organs

Malignant Tumors

=====  
Male Rats

Organ

Lung

Mammary Gland

Pituitary Gland: Pars Distalis or Unspecified Site

Thyroid Gland: C-Cell

All Organs

Morphology

=====  
All Organs

Malignant Tumors

=====  
Male Rats

Organ

Lung

Mammary Gland

Pituitary Gland: Pars Distalis or Unspecified Site

Thyroid Gland: C-Cell

All Organs

Morphology

=====  
All Organs

Malignant Tumors

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Male Rats

Organ

Lung

Mammary Gland

Pituitary Gland: Pars Distalis or Unspecified Site

Thyroid Gland: C-Cell

All Organs

Morphology

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All Organs

Malignant Tumors

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Male Rats

Organ

Lung

Mammary Gland

Pituitary Gland: Pars Distalis or Unspecified Site

Thyroid Gland: C-Cell

All Organs

Morphology

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All Organs

Malignant Tumors

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Male Rats

Organ

Lung

Mammary Gland

Pituitary Gland: Pars Distalis or Unspecified Site

Thyroid Gland: C-Cell

All Organs

Morphology

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All Organs

Malignant Tumors

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Male Rats

Organ

Lung

Mammary Gland

Pituitary Gland: Pars Distalis or Unspecified Site

Thyroid Gland: C-Cell

All Organs

Morphology

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All Organs

Malignant Tumors

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Male Rats

Organ

Lung

Mammary Gland

Pituitary Gland: Pars Distalis or Unspecified Site

Thyroid Gland: C-Cell

All Organs

Morphology

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All Organs

Malignant Tumors

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Male Rats

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Malignant Tumors

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Male Rats

Organ

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All Organs

Malignant Tumors

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Male Rats

Dose	Males			Females			
	CONTROL	100 PPM	200 PPM	400 PPM	CONTROL	100 PPM	200 PPM
<b>Adrenal Medulla</b>							
Pheochromocytoma Benign							
TUMOR RATES							
OVERALL (a)	12/50 (24%)	4/50 (8%)	9/50 (18%)	7/50 (14%)	2/50 (4%)	2/50 (4%)	3/50 (6%)
POLY-3 RATE (b)	12/44.11	4/45.38	9/44.10	7/45.14	2/42.30	2/43.64	3/43.84
POLY-3 PERCENT (g)	27.2%	8.8%	20.4%	15.5%	4.7%	4.6%	6.8%
TERMINAL (d)	8/31 (26%)	4/35 (11%)	8/32 (25%)	6/32 (19%)	2/33 (6%)	1/30 (3%)	3/33 (9%)
FIRST INCIDENCE	623	729 (T)	722	674	731 (T)	696	731 (T)
STATISTICAL TESTS							
LIFE TABLE	P=0.256N	P=0.017N*	P=0.286N	P=0.136N	P=0.410	P=0.668	P=0.500
POLY 3	P=0.248N	P=0.021N*	P=0.308N	P=0.136N	P=0.506	P=0.683N	P=0.516
POLY 1.5	P=0.247N	P=0.024N*	P=0.314N	P=0.141N	P=0.534	P=0.686N	P=0.511
POLY 6	P=0.255N	P=0.018N*	P=0.305N	P=0.133N	P=0.461	P=0.685N	P=0.520
LOGISTIC REGRESSION	P=0.233N	P=0.019N*	P=0.273N	P=0.125N	P=0.472	P=0.693N	P=0.500
COCH-ARM / FISHERS	P=0.257N	P=0.027N*	P=0.312N	P=0.154N	P=0.569	P=0.500	P=0.691N
ORDER RESTRICTED	P=0.094N	(e)	(e)	(e)	P=0.607	(e)	(e)
Dose	CONTROL	100 PPM	200 PPM	400 PPM	CONTROL	100 PPM	200 PPM
<b>Adrenal Medulla</b>							
Pheochromocytoma Malignant							
TUMOR RATES							
OVERALL (a)	1/50 (2%)	2/50 (4%)	2/50 (4%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	1/43.15	2/45.38	2/44.10	1/45.12	0/42.30	0/43.50	1/44.53
POLY-3 PERCENT (g)	2.3%	4.4%	4.5%	2.2%	0.0%	0.0%	2.3%
TERMINAL (d)	1/31 (3%)	2/35 (6%)	1/32 (3%)	0/32 (0%)	0/33 (0%)	0/30 (0%)	0/22 (0%)
FIRST INCIDENCE	729 (T)	729 (T)	722	680	--	--	589
STATISTICAL TESTS							
LIFE TABLE	P=0.552N	P=0.543	P=0.514	P=0.742N	P=0.232	(e)	P=0.509
POLY 3	P=0.541N	P=0.518	P=0.508	P=0.751N	P=0.204	(e)	P=0.480
POLY 1.5	P=0.545N	P=0.508	P=0.502	P=0.754N	P=0.218	(e)	P=0.489
POLY 6	P=0.537N	P=0.531	P=0.514	P=0.747N	P=0.182	(e)	P=0.462
LOGISTIC REGRESSION	P=0.546N	P=0.543	P=0.521	P=0.756N	P=0.327	(e)	P=0.535
COCH-ARM / FISHERS	P=0.566N	P=0.500	P=0.500	P=0.753N	P=0.236	(e)	P=0.500
ORDER RESTRICTED	P=0.540N	(e)	(e)	P=0.232	(e)	(e)	(e)

Date: 01/31/04

EXPERIMENT: 88004 TEST: 05  
 Statistical Analysis of Primary Tumors in Rats (FISCHER 344)  
 Terminal Sacrifice at 105 weeks

Dose	CONTROL	100 PPM	200 PPM	400 PPM	CONTROL	100 PPM	200 PPM	Females	200 PPM	400 PPM
<b>Adrenal Medulla</b>										
Pheochromocytoma: Benign, Complex, Malignant, NOS										
<b>TUMOR RATES</b>										
OVERALL (a)										
POLY-3 RATE (b)										
POLY-3 PERCENT (g)										
TERMINAL (d)										
FIRST INCIDENCE										
<b>STATISTICAL TESTS</b>										
LIFE TABLE										
POLY 3										
POLY 1.5										
POLY 6										
LOGISTIC REGRESSION										
COCH-ARM / FISHERS										
ORDER RESTRICTED										
<b>TUMOR RATES</b>										
OVERALL (a)										
POLY-3 RATE (b)										
POLY-3 PERCENT (g)										
TERMINAL (d)										
FIRST INCIDENCE										
<b>STATISTICAL TESTS</b>										
LIFE TABLE										
POLY 3										
POLY 1.5										
POLY 6										
LOGISTIC REGRESSION										
COCH-ARM / FISHERS										
ORDER RESTRICTED										
<b>TUMOR RATES</b>										
OVERALL (a)										
POLY-3 RATE (b)										
POLY-3 PERCENT (g)										
TERMINAL (d)										
FIRST INCIDENCE										
<b>STATISTICAL TESTS</b>										
LIFE TABLE										
POLY 3										
POLY 1.5										
POLY 6										
LOGISTIC REGRESSION										
COCH-ARM / FISHERS										
ORDER RESTRICTED										
<b>TUMOR RATES</b>										
OVERALL (a)										
POLY-3 RATE (b)										
POLY-3 PERCENT (g)										
TERMINAL (d)										
FIRST INCIDENCE										
<b>STATISTICAL TESTS</b>										
LIFE TABLE										
POLY 3										
POLY 1.5										
POLY 6										
LOGISTIC REGRESSION										
COCH-ARM / FISHERS										
ORDER RESTRICTED										
<b>TUMOR RATES</b>										
OVERALL (a)										
POLY-3 RATE (b)										
POLY-3 PERCENT (g)										
TERMINAL (d)										
FIRST INCIDENCE										
<b>STATISTICAL TESTS</b>										
LIFE TABLE										
POLY 3										
POLY 1.5										
POLY 6										
LOGISTIC REGRESSION										
COCH-ARM / FISHERS										
ORDER RESTRICTED										

DIVINYLBENZENE

Page 2

Page 2

Terminal Sacrifice at 105 weeks

Dose	Males				Females			
	CONTROL	100 PPM	200 PPM	400 PPM	CONTROL	100 PPM	200 PPM	400 PPM
<b>Brain</b>								
Oligodendroglioma, Glioma, or Astrocytoma								

TUMOR RATES	Males				Females			
LIFE TABLE	CONTROL	100 PPM	200 PPM	400 PPM	CONTROL	100 PPM	200 PPM	400 PPM
OVERALL (a)	0/49 (0%)	1/50 (2%)	3/50 (6%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	0/42.15	1/45.87	3/44.07	0/44.93	0/42.30	0/43.50	1/44.71	0/37.73
POLY-3 PERCENT (g)	0.0%	2.2%	6.8%	0.0%	0.0%	0.0%	2.2%	0.0%
TERMINAL (d)	0/30 (0%)	0/35 (0%)	3/32 (9%)	0/32 (0%)	0/33 (0%)	0/30 (0%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	---	582	729 (T)	---	---	374	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.630N	P=0.509	P=0.132	(e)	P=0.692	(e)	P=0.500	(e)
POLY 3	P=0.614N	P=0.517	P=0.126	(e)	P=0.633	(e)	P=0.511	(e)
POLY 1.5	P=0.619N	P=0.510	P=0.124	(e)	P=0.662	(e)	P=0.507	(e)
POLY 6	P=0.612N	P=0.526	P=0.130	(e)	P=0.581	(e)	P=0.513	(e)
LOGISTIC REGRESSION	P=0.629N	P=0.531	P=0.132	(e)	P=0.619N	(e)	P=0.500	(e)
COCH-ARM / FISHERS	P=0.629N	P=0.505	P=0.125	(e)	P=0.694	(e)	P=0.500	(e)
ORDER RESTRICTED	P=0.231	(e)	(e)	(e)	P=0.393	(e)	(e)	(e)

Dose	Males				Females			
CONTROL	100 PPM	200 PPM	400 PPM	CONTROL	100 PPM	200 PPM	400 PPM	
<b>Clitoral/Preputial Gland</b>								
Carcinoma or Adenoma								

TUMOR RATES	Males				Females			
LIFE TABLE	CONTROL	100 PPM	200 PPM	400 PPM	CONTROL	100 PPM	200 PPM	400 PPM
OVERALL (a)	0/48 (0%)	2/50 (4%)	0/50 (0%)	2/49 (4%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	0/41.16	2/46.40	0/44.07	2/44.42	0/42.30	0/43.50	1/43.88	0/37.73
POLY-3 PERCENT (g)	0.0%	4.3%	0.0%	4.5%	0.0%	0.0%	2.3%	0.0%
TERMINAL (d)	0/30 (0%)	0/35 (0%)	0/32 (0%)	0/31 (0%)	0/33 (0%)	0/30 (0%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	---	393	---	638	---	722	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.256	P=0.257	(e)	P=0.257	P=0.655	(e)	P=0.506	(e)
POLY 3	P=0.264	P=0.265	(e)	P=0.254	P=0.635	(e)	P=0.507	(e)
POLY 1.5	P=0.258	P=0.256	(e)	P=0.250	P=0.663	(e)	P=0.505	(e)
POLY 6	P=0.271	P=0.276	(e)	P=0.260	P=0.584	(e)	P=0.509	(e)
LOGISTIC REGRESSION	P=0.206	P=0.281	(e)	P=0.214	P=0.669	(e)	P=0.508	(e)
COCH-ARM / FISHERS	P=0.249	P=0.258	(e)	P=0.253	P=0.694	(e)	P=0.500	(e)
ORDER RESTRICTED	P=0.130	(e)	(e)	P=0.389	(e)	(e)	(e)	(e)

Date: 01/31/04

EXPERIMENT: 88004 TEST: 05  
 Statistical Analysis of Primary Tumors in Rats (FISCHER 344)  
 Terminal Sacrifice at 105 weeks

Dose	CONTROL	100 PPM	200 PPM	400 PPM	CONTROL	100 PPM	200 PPM	Females	400 PPM
<b>Islets, Pancreatic Adenoma</b>									

TUMOR RATES									
OVERALL (a)	5/50 (10%)	8/48 (17%)	2/50 (4%)	9/50 (18%)	1/50 (2%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	1/50 (2%)
POLY-3 RATE (b)	5/43 .75	8/44 .47	4/44 .24	9/45 .84	1/42 .30	0/43 .50	1/43 .84	1/43 .84	1/38 .36
POLY-3 PERCENT (g)	11.4%	18.0%	4.5%	19.6%	2.4%	0.0%	2.3%	2.3%	2.6%
TERMINAL (d)	3/31 (10%)	7/34 (21%)	1/32 (3%)	6/32 (19%)	1/33 (3%)	0/30 (0%)	1/33 (3%)	0/22 (0%)	0/22 (0%)
FIRST INCIDENCE	5/3	7/04	6/87	6/14	7/31 (T)	---	7/31 (T)	5/23	5/23
STATISTICAL TESTS									
LIFE TABLE	P=0.240	P=0.343	P=0.207N	P=0.225	P=0.486	P=0.519N	P=0.762	P=0.729	P=0.729
POLY 3	P=0.255	P=0.285	P=0.211N	P=0.218	P=0.503	P=0.494N	P=0.753N	P=0.739	P=0.739
POLY 1.5	P=0.248	P=0.270	P=0.216N	P=0.209	P=0.519	P=0.496N	P=0.755N	P=0.749	P=0.749
POLY 6	P=0.262	P=0.306	P=0.204N	P=0.230	P=0.478	P=0.496N	P=0.751N	P=0.718	P=0.718
LOGISTIC REGRESSION	P=0.249	P=0.297	P=0.215N	P=0.200	P=0.553	(e)	P=0.762	P=0.745N	P=0.745N
COCH-ARM / FISHERS	P=0.240	P=0.250	P=0.218N	P=0.194	P=0.539	P=0.500N	P=0.753N	P=0.753N	P=0.753N
ORDER RESTRICTED	P=0.190	(e)	(e)	(e)	P=0.500	(e)	(e)	(e)	(e)

Dose	CONTROL	100 PPM	200 PPM	400 PPM	CONTROL	100 PPM	200 PPM	Females	400 PPM
<b>Islets, Pancreatic Carcinoma or Adenoma</b>									

TUMOR RATES									
OVERALL (a)	6/50 (12%)	8/48 (17%)	3/50 (6%)	10/50 (20%)	1/50 (2%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	2/50 (4%)
POLY-3 RATE (b)	6/43 .75	8/44 .47	3/44 .24	10/45 .84	1/42 .30	0/43 .50	1/43 .84	1/43 .84	2/38 .97
POLY-3 PERCENT (g)	13.7%	18.0%	6.8%	21.8%	2.4%	0.0%	2.3%	2.3%	5.1%
TERMINAL (d)	4/31 (13%)	7/34 (21%)	2/32 (6%)	7/32 (22%)	1/33 (3%)	0/30 (0%)	1/33 (3%)	0/22 (0%)	0/22 (0%)
FIRST INCIDENCE	5/3	7/04	6/87	6/14	7/31 (T)	---	7/31 (T)	5/23	5/23
STATISTICAL TESTS									
LIFE TABLE	P=0.218	P=0.462	P=0.230N	P=0.239	P=0.209	P=0.519N	P=0.762	P=0.744	P=0.744
POLY 3	P=0.233	P=0.392	P=0.236N	P=0.234	P=0.226	P=0.494N	P=0.753N	P=0.731	P=0.731
POLY 1.5	P=0.228	P=0.380	P=0.242N	P=0.224	P=0.235	P=0.496N	P=0.755N	P=0.485	P=0.485
POLY 6	P=0.239	P=0.423	P=0.228N	P=0.247	P=0.212	P=0.496N	P=0.751N	P=0.445	P=0.445
LOGISTIC REGRESSION	P=0.230	P=0.118	P=0.235N	P=0.221	P=0.289	(e)	P=0.762	P=0.554	P=0.554
COCH-ARM / FISHERS	P=0.220	P=0.355	P=0.243N	P=0.207	P=0.247	P=0.500N	P=0.753N	P=0.500	P=0.500
ORDER RESTRICTED	P=0.180	(e)	(e)	(e)	P=0.196	(e)	(e)	(e)	(e)

Dose	Males				Females			
	CONTROL	100 PPM	200 PPM	400 PPM	CONTROL	100 PPM	200 PPM	400 PPM
<b>Kidney: Renal Tubule Carcinoma</b>								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	0/49 (0%)	0/50 (0%)	2/49 (4%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.15	0/45.37	0/44.07	2/44.14	0/42.30	0/43.50	0/43.33	0/37.73
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	4.5%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/31 (0%)	0/35 (0%)	0/32 (0%)	1/32 (3%)	0/33 (0%)	0/30 (0%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	---	---	---	682	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.046 *	(e)	(e)	P=0.252	(e)	(e)	(e)	(e)
POLY 3	P=0.044 *	(e)	(e)	P=0.242	(e)	(e)	(e)	(e)
POLY 1.5	P=0.045 *	(e)	(e)	P=0.239	(e)	(e)	(e)	(e)
POLY 6	P=0.044 *	(e)	(e)	P=0.246	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.046 *	(e)	(e)	P=0.240	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.045 *	(e)	(e)	P=0.242	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.031 *	(e)						
Dose	CONTROL	100 PPM	200 PPM	400 PPM	CONTROL	100 PPM	200 PPM	400 PPM
<b>Liver Hepatocellular Adenoma</b>								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	2/50 (4%)	0/50 (0%)
POLY-3 RATE (b)	0/43.15	0/45.37	0/44.07	0/44.93	0/42.30	2/43.90	2/43.84	0/37.73
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	0.0%	4.6%	4.6%	0.0%
TERMINAL (d)	0/31 (0%)	0/35 (0%)	0/32 (0%)	0/32 (0%)	0/33 (0%)	1/30 (3%)	2/33 (6%)	0/22 (0%)
FIRST INCIDENCE	---	---	---	---	---	617	731 (T)	---
STATISTICAL TESTS								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.597N	P=0.237	P=0.238	(e)
POLY 3	(e)	(e)	(e)	(e)	P=0.551N	P=0.245	P=0.245	(e)
POLY 1.5	(e)	(e)	(e)	(e)	P=0.527N	P=0.243	P=0.242	(e)
POLY 6	(e)	(e)	(e)	(e)	P=0.592N	P=0.245	P=0.246	(e)
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.534N	P=0.233	P=0.238	(e)
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.500N	P=0.247	P=0.247	(e)
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.288	(e)	(e)	(e)

Date: 01/31/04

EXPERIMENT: 88004 TEST: 05  
 Statistical Analysis of Primary Tumors in Rats (FISCHER 344)  
 Terminal Sacrifice at 105 weeks

Page 6  
 DIVINYLBENZENE

Dose	CONTROL	100 PPM	200 PPM	400 PPM		Males	CONTROL	100 PPM	200 PPM	Females	200 PPM	400 PPM
<b>Liver Hepatocellular Carcinoma or Hepatocellular Adenoma</b>												
<b>TUMOR RATES</b>												
<b>OVERALL (a)</b>												
OVERALL (a)	0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	3/50 (6%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.15	0/45.37	0/44.07	0/44.93	0/42.30	0/42.30	0/42.30	2/43.90	3/43.92	0/37.73	0/37.73	0/37.73
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.6%	6.8%	0.0%	0.0%	0.0%
TERMINAL (d)	0/31 (0%)	0/35 (0%)	0/32 (0%)	0/32 (0%)	0/33 (0%)	0/33 (0%)	0/33 (0%)	1/30 (3%)	2/33 (6%)	0/22 (0%)	0/22 (0%)	0/22 (0%)
FIRST INCIDENCE	---	---	---	---	---	---	---	617	711	---	---	---
<b>STATISTICAL TESTS</b>												
LIFE TABLE	(e)	P=0.612	P=0.237	P=0.128	P=0.128	(e)						
POLY 3	(e)	P=0.596N	P=0.245	P=0.125	P=0.125	(e)						
POLY 1.5	(e)	P=0.566N	P=0.243	P=0.123	P=0.123	(e)						
POLY 6	(e)	P=0.558	P=0.245	P=0.127	P=0.127	(e)						
LOGISTIC REGRESSION	(e)	P=0.574N	P=0.233	P=0.127	P=0.127	(e)						
COCH-ARM / FISHERS	(e)	P=0.531N	P=0.247	P=0.121	P=0.121	(e)						
ORDER RESTRICTED	(e)	P=0.242	(e)	(e)	(e)	(e)						
<b>Liver Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma</b>												
<b>TUMOR RATES</b>												
OVERALL (a)	0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	3/50 (6%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.15	0/45.37	0/44.07	0/44.93	0/42.30	0/42.30	0/42.30	2/43.90	3/43.92	0/37.73	0/37.73	0/37.73
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.6%	6.8%	0.0%	0.0%	0.0%
TERMINAL (d)	0/31 (0%)	0/35 (0%)	0/32 (0%)	0/32 (0%)	0/33 (0%)	0/33 (0%)	0/33 (0%)	1/30 (3%)	2/33 (6%)	0/22 (0%)	0/22 (0%)	0/22 (0%)
FIRST INCIDENCE	---	---	---	---	---	---	---	617	711	---	---	---
<b>STATISTICAL TESTS</b>												
LIFE TABLE	(e)	P=0.612	P=0.237	P=0.128	P=0.128	(e)						
POLY 3	(e)	P=0.596N	P=0.245	P=0.125	P=0.125	(e)						
POLY 1.5	(e)	P=0.566N	P=0.243	P=0.123	P=0.123	(e)						
POLY 6	(e)	P=0.558	P=0.245	P=0.127	P=0.127	(e)						
LOGISTIC REGRESSION	(e)	P=0.574N	P=0.233	P=0.127	P=0.127	(e)						
COCH-ARM / FISHERS	(e)	P=0.531N	P=0.247	P=0.121	P=0.121	(e)						
ORDER RESTRICTED	(e)	P=0.242	(e)	(e)	(e)	(e)						

Statistical Analysis of Primary Tumors in Rats (FISCHER 344)  
Terminal Sacrifice at 105 weeks

DIVINYLBENZENE

Dose	Males				Females			
	CONTROL	100 PPM	200 PPM	400 PPM	CONTROL	100 PPM	200 PPM	400 PPM
<b>Lung</b>								
<b>Alveolar/Bronchiolar Adenoma</b>								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	1/50 (2%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	0/43.15	1/45.38	0/44.07	1/44.93	0/42.30	0/43.50	0/43.84	2/37.73
POLY-3 PERCENT (g)	0.0%	2.2%	0.0%	2.2%	0.0%	0.0%	0.0%	5.3%
TERMINAL (d)	0/31 (0%)	1/35 (3%)	0/32 (0%)	1/32 (3%)	0/33 (0%)	0/30 (0%)	0/33 (0%)	2/22 (9%)
FIRST INCIDENCE	729 (T)	729 (T)	729 (T)	731 (T)				
STATISTICAL TESTS								
LIFE TABLE	P=0.403	P=0.524	(e)	P=0.506	P=0.023 *	(e)	(e)	P=0.154
POLY 3	P=0.417	P=0.510	(e)	P=0.508	P=0.041 *	(e)	(e)	P=0.212
POLY 1.5	P=0.413	P=0.504	(e)	P=0.505	P=0.043 *	(e)	(e)	P=0.224
POLY 6	P=0.421	P=0.518	(e)	P=0.511	P=0.039 *	(e)	(e)	P=0.193
LOGISTIC REGRESSION	(e)	P=0.524	(e)	P=0.506	(e)	(e)	(e)	P=0.154
COCH-ARM / FISHERS	P=0.405	P=0.500	(e)	P=0.500	P=0.046 *	(e)	(e)	P=0.247
ORDER RESTRICTED	P=0.259	(e)	(e)	P=0.022 *	(e)	(e)	(e)	
<b>Lung</b>								
<b>Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma</b>								
TUMOR RATES								
OVERALL (a)	1/50 (2%)	1/50 (2%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	1/43.15	1/45.38	1/44.07	1/44.93	0/42.30	0/43.50	0/43.84	2/37.73
POLY-3 PERCENT (g)	2.3%	2.2%	2.2%	2.2%	0.0%	0.0%	0.0%	5.3%
TERMINAL (d)	1/31 (3%)	1/35 (3%)	1/32 (3%)	1/32 (3%)	0/33 (0%)	0/30 (0%)	0/33 (0%)	2/22 (9%)
FIRST INCIDENCE	729 (T)	729 (T)	729 (T)	731 (T)				
STATISTICAL TESTS								
LIFE TABLE	P=0.633	P=0.735N	P=0.755N	P=0.755N	P=0.023 *	(e)	(e)	P=0.154
POLY 3	P=0.627N	P=0.749N	P=0.756N	P=0.752N	P=0.041 *	(e)	(e)	P=0.212
POLY 1.5	P=0.628N	P=0.756N	P=0.759N	P=0.755N	P=0.043 *	(e)	(e)	P=0.224
POLY 6	P=0.628N	P=0.741N	P=0.752N	P=0.749N	P=0.039 *	(e)	(e)	P=0.193
LOGISTIC REGRESSION	P=0.633	P=0.735N	P=0.755N	P=0.755N	(e)	(e)	(e)	P=0.154
COCH-ARM / FISHERS	P=0.634	P=0.753N	P=0.753N	P=0.753N	P=0.046 *	(e)	(e)	P=0.247
ORDER RESTRICTED	P=0.735N	(e)	(e)	P=0.022 *	(e)	(e)	(e)	

Date: 01/31/04

EXPERIMENT: 88004 TEST: 05

Statistical Analysis of Primary Tumors in Rats (FTSCHER 3441)  
Terminal Sacrifice at 105 weeks

Dose	CONTROL	Males			CONTROL	Females			400 PPM
		100 PPM	200 PPM	400 PPM		100 PPM	200 PPM	400 PPM	
<b>Mammary Gland Carcinoma</b>									
TUMOR RATES	#	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	3/50 (6%)	5/50 (10%)	4/50 (8%)	0/50 (0%)	
POLY-3 RATE (b)	1/43.15	0/45.38	1/44.07	0/44.93	3/42.30	5/44.54	4/43.84	0/37.73	
POLY-3 PERCENT (g)	2.3%	0.0%	2.3%	0.0%	7.1%	11.2%	9.1%	0.0%	
TERMINAL (d)	1/31 (3%)	0/35 (0%)	1/32 (3%)	0/32 (0%)	3/33 (9%)	2/30 (7%)	4/33 (12%)	0/22 (0%)	
FIRST INCIDENCE	729 (T)	---	729 (T)	---	731 (T)	374	731 (T)	---	
<b>STATISTICAL TESTS</b>									
LIFE TABLE	P=0.406N	P=0.476N	P=0.755N	P=0.494N	P=0.150N	P=0.320	P=0.500	P=0.200N	
POLY 3	P=0.406N	P=0.490N	P=0.756N	P=0.492N	P=0.110N	P=0.385	P=0.520	P=0.140N	
POLY 1.5	P=0.404N	P=0.496N	P=0.759N	P=0.495N	P=0.095N	P=0.377	P=0.513	P=0.130N	
POLY 6	P=0.410N	P=0.482N	P=0.752N	P=0.489N	P=0.140N	P=0.385	P=0.523	P=0.160N	
LOGISTIC REGRESSION	P=0.406N	(e)	P=0.755N	(e)	P=0.091N	P=0.353	P=0.500	(e)	
COCH-ARM / FISHERS	P=0.405N	P=0.500N	P=0.753N	P=0.500N	P=0.079N	P=0.357	P=0.500	P=0.121N	
ORDER RESTRICTED	P=0.243N	(e)	(e)	(e)	P=0.090N	(e)	(e)	(e)	
Dose	CONTROL	100 PPM	200 PPM	400 PPM	CONTROL	100 PPM	200 PPM	400 PPM	
<b>Mammary Gland Carcinoma or Adenoma</b>									
TUMOR RATES	#	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	3/50 (6%)	6/50 (12%)	4/50 (8%)	0/50 (0%)	
POLY-3 RATE (b)	1/43.15	1/45.38	1/44.07	0/44.93	3/42.30	6/44.77	4/43.84	0/37.73	
POLY-3 PERCENT (g)	2.3%	2.2%	2.3%	0.0%	7.1%	13.4%	9.1%	0.0%	
TERMINAL (d)	1/31 (3%)	1/35 (3%)	1/32 (3%)	0/32 (0%)	3/33 (9%)	2/30 (7%)	4/33 (12%)	0/22 (0%)	
FIRST INCIDENCE	729 (T)	729 (T)	729 (T)	---	731 (T)	374	731 (T)	---	
<b>STATISTICAL TESTS</b>									
LIFE TABLE	P=0.311N	P=0.735N	P=0.755N	P=0.494N	P=0.134N	P=0.219	P=0.500	P=0.200N	
POLY 3	P=0.307N	P=0.749N	P=0.756N	P=0.492N	P=0.093N	P=0.270	P=0.520	P=0.140N	
POLY 1.5	P=0.308N	P=0.756N	P=0.759N	P=0.495N	P=0.079N	P=0.262	P=0.513	P=0.130N	
POLY 6	P=0.306N	P=0.741N	P=0.752N	P=0.489N	P=0.122N	P=0.272	P=0.523	P=0.160N	
LOGISTIC REGRESSION	P=0.311N	P=0.735N	P=0.755N	(e)	P=0.075N	P=0.238	P=0.500	(e)	
COCH-ARM / FISHERS	P=0.311N	P=0.753N	P=0.753N	(e)	P=0.066N	P=0.243	P=0.500	P=0.121N	
ORDER RESTRICTED	P=0.320N	(e)	(e)	(e)	P=0.067N	(e)	(e)	(e)	

Dose	CONTROL	100 PPM	200 PPM	400 PPM	Males		Females					
					CONTROL	100 PPM	200 PPM	400 PPM				
<b>Mammary Gland Fibroadenoma</b>												
<b>STATISTICAL TESTS</b>												
LIFE TABLE	#	#	#	#	#	#	#	#				
OVERALL (a)	1/150 (2%)	0/50 (0%)	5/50 (10%)	2/50 (4%)	20/50 (40%)	22/50 (44%)	19/50 (38%)	14/50 (28%)				
POLY-3 RATE (b)	1/43.15	0/45.38	5/44.58	2/44.93	20/43.01	22/45.41	19/44.55	14/39.80				
POLY-3 PERCENT (g)	2.3%	0.0%	11.2%	4.5%	46.5%	48.4%	42.7%	35.2%				
TERMINAL (d)	1/31 (3%)	0/35 (0%)	4/32 (13%)	2/32 (6%)	15/33 (46%)	12/30 (40%)	13/33 (39%)	8/22 (36%)				
FIRST INCIDENCE	729 (T)	729 (T)	578	729 (T)	631	617	666	523				
COCH-ARM / FISHERS												
ORDER RESTRICTED	P=0.097	(e)	(e)	(e)	(e)	(e)	(e)	(e)				
<b>STATISTICAL TESTS</b>												
LIFE TABLE	P=0.228	P=0.476N	P=0.111	P=0.511	P=0.476N	P=0.335	P=0.484N	P=0.572				
POLY 3	P=0.240	P=0.490N	P=0.108	P=0.514	P=0.133N	P=0.512	P=0.441N	P=0.200N				
POLY 1.5	P=0.239	P=0.496N	P=0.104	P=0.509	P=0.104N	P=0.478	P=0.462N	P=0.169N				
POLY 6	P=0.237	P=0.482N	P=0.114	P=0.519	P=0.202N	P=0.538	P=0.428N	P=0.280N				
LOGISTIC REGRESSION	P=0.240	P=0.500N	P=0.106	P=0.511	P=0.201N	P=0.470	P=0.426N	P=0.309N				
COCH-ARM / FISHERS	P=0.232	P=0.500N	P=0.102	P=0.500	P=0.080N	P=0.420	P=0.500N	P=0.146N				
ORDER RESTRICTED	P=0.097	(e)	(e)	(e)	(e)	(e)	(e)	(e)				
<b>Mammary Gland Fibroma, Fibroadenoma or Adenoma</b>												
Dose	CONTROL	100 PPM	200 PPM	400 PPM	CONTROL	100 PPM	200 PPM	400 PPM				
LIFE TABLE	#	#	#	#	#	#	#	#				
OVERALL (a)	1/150 (2%)	1/50 (2%)	5/50 (10%)	2/50 (4%)	20/50 (40%)	23/50 (46%)	19/50 (38%)	14/50 (28%)				
POLY-3 RATE (b)	1/43.15	1/45.38	5/44.58	2/44.93	20/43.01	23/45.64	19/44.55	14/39.80				
POLY-3 PERCENT (g)	2.3%	2.2%	11.2%	4.5%	46.5%	50.4%	42.7%	35.2%				
TERMINAL (d)	1/31 (3%)	1/35 (3%)	4/32 (13%)	2/32 (6%)	15/33 (46%)	12/30 (40%)	13/33 (39%)	8/22 (36%)				
FIRST INCIDENCE	729 (T)	729 (T)	578	729 (T)	631	617	666	523				
STATISTICAL TESTS												
LIFE TABLE	P=0.298	P=0.735N	P=0.111	P=0.511	P=0.455N	P=0.276	P=0.484N	P=0.572				
POLY 3	P=0.316	P=0.749N	P=0.108	P=0.514	P=0.119N	P=0.438	P=0.441N	P=0.200N				
POLY 1.5	P=0.313	P=0.756N	P=0.104	P=0.509	P=0.092N	P=0.401	P=0.462N	P=0.169N				
POLY 6	P=0.315	P=0.741N	P=0.114	P=0.519	P=0.186N	P=0.471	P=0.428N	P=0.280N				
LOGISTIC REGRESSION	P=0.312	P=0.735N	P=0.106	P=0.511	P=0.178N	P=0.389	P=0.426N	P=0.309N				
COCH-ARM / FISHERS	P=0.302	P=0.753N	P=0.102	P=0.500	P=0.070N	P=0.343	P=0.500N	P=0.146N				
ORDER RESTRICTED	P=0.182	(e)	(e)	(e)	(e)	(e)	(e)	(e)				

Date: 01/31/04

EXPERIMENT: 88004 TEST: 05  
 Statistical Analysis of Primary Tumors in Rats (FISCHER 344)  
 Terminal Sacrifice at 105 weeks

Page 10  
 DIVINYLBENZENE

Mammary Gland  
 Fibroma, Fibroadenoma, Carcinoma, or Adenoma

Dose	CONTROL	100 PPM	200 PPM	400 PPM	CONTROL	100 PPM	200 PPM	400 PPM
<b>TUMOR RATES</b>								
<b>OVERALL (a)</b>								
1/50 (2%)	1/50 (2%)	5/50 (10%)	2/50 (4%)	22/50 (44%)	25/50 (50%)	21/50 (42%)	14/50 (28%)	
1/43.15	1/43.15	5/44.58	4/44.93	22/43.01	25/46.62	21/44.55	14/39.80	
POLY-3 RATE (b)	POLY-3 RATE (b)	2.2%	1.12%	51.2%	53.6%	47.1%	35.2%	
POLY-3 PERCENT (g)	POLY-3 PERCENT (g)	2.3%	1.3%	4.5%	5.1%			
TERMINAL (d)	TERMINAL (d)	1/31 (3%)	4/32 (13%)	2/32 (6%)	17/33 (52%)	15/33 (46%)	8/22 (36%)	
FIRST INCIDENCE	FIRST INCIDENCE	7/29 (T)	5/78 (T)	7/29 (T)	631	374	666	523
<b>STATISTICAL TESTS</b>								
<b>LIFE TABLE</b>								
P=0.298	P=0.735N	P=0.111	P=0.511	P=0.330N	P=0.276	P=0.484N	P=0.461N	
P=0.316	P=0.749N	P=0.108	P=0.514	P=0.057N	P=0.491	P=0.435N	P=0.099N	
POLY 3	POLY 3	5/56N	P=0.104	P=0.509	P=0.041N*	P=0.435	P=0.458N	P=0.082N
POLY 1.5	POLY 1.5	P=0.741N	P=0.114	P=0.519	P=0.103N	P=0.539	P=0.420N	P=0.153N
POLY 6	POLY 6	P=0.735N	P=0.106	P=0.511	P=0.077N	P=0.391	P=0.418N	P=0.189N
LOGISTIC REGRESSION	LOGISTIC REGRESSION	P=0.312	P=0.753N	P=0.500	P=0.029N*	P=0.344	P=0.500N	P=0.072N
COCH-ARM / FISHERS	COCH-ARM / FISHERS	P=0.302	(e)	(e)	P=0.088N	(e)	(e)	(e)
ORDER RESTRICTED	ORDER RESTRICTED	P=0.182						
<b>TUMOR RATES</b>								
<b>Males</b>								
CONTROL	100 PPM	200 PPM	400 PPM	CONTROL	100 PPM	200 PPM	400 PPM	
<b>Females</b>								
<b>Pituitary Gland: Pars Distalis or Unspecified Site</b>								
<b>Adenoma</b>								
<b>TUMOR RATES</b>								
<b>OVERALL (a)</b>								
36/50 (72%)	30/50 (60%)	31/50 (62%)	29/49 (59%)	37/50 (74%)	34/50 (68%)	39/50 (78%)	28/50 (56%)	
36/47.03	30/47.41	31/46.48	29/45.96	37/46.77	34/46.44	39/47.30	28/42.25	
POLY-3 RATE (b)	POLY-3 RATE (b)	63.3%	66.7%	63.1%	79.1%	73.2%	82.5%	
POLY-3 PERCENT (g)	POLY-3 PERCENT (g)	76.6%	63.3%	66.7%	79.1%			
TERMINAL (d)	TERMINAL (d)	24/31 (77%)	22/35 (63%)	19/32 (59%)	26/33 (79%)	22/30 (73%)	27/33 (82%)	66.3%
FIRST INCIDENCE	FIRST INCIDENCE	506	569	586	614	455	374	493
<b>STATISTICAL TESTS</b>								
<b>LIFE TABLE</b>								
P=0.167N	P=0.066N	P=0.191N	P=0.106N	P=0.358	P=0.511N	P=0.468	P=0.484	
P=0.150N	P=0.113N	P=0.197N	P=0.109N	P=0.138N	P=0.330N	P=0.438	P=0.114N	
POLY 3	POLY 3	P=0.135N	P=0.208N	P=0.113N	P=0.084N	P=0.318N	P=0.425	P=0.073N
POLY 1.5	POLY 1.5	P=0.162N	P=0.088N	P=0.181N	P=0.108N	P=0.368N	P=0.450	P=0.234N
POLY 6	POLY 6	P=0.121N	P=0.117N	P=0.175N	P=0.100N	P=0.266N	P=0.476	P=0.086N
LOGISTIC REGRESSION	LOGISTIC REGRESSION	P=0.157N	P=0.146N	P=0.198N	P=0.129N	P=0.044N*	P=0.330N	P=0.046N*
COCH-ARM / FISHERS	COCH-ARM / FISHERS	P=0.121N	(e)	(e)	P=0.107N	(e)	(e)	(e)
ORDER RESTRICTED	ORDER RESTRICTED							

Dose	Males				Females			
	CONTROL	100 PPM	200 PPM	400 PPM	CONTROL	100 PPM	200 PPM	400 PPM
<b>Pituitary Gland: Pars Intermedia Adenoma</b>								
TUMOR RATES								
OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.15	2/45.38	0/44.07	0/43.95	0/42.30	0/43.50	0/43.84	0/37.73
POLY-3 PERCENT (g)	0.0%	4.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/31 (0%)	2/35 (6%)	0/32 (0%)	0/33 (0%)	0/33 (0%)	0/33 (0%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	729 (T)	---	---	---	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.406N	P=0.265	(e)	(e)	(e)	(e)	(e)	(e)
POLY 3	P=0.394N	P=0.248	(e)	(e)	(e)	(e)	(e)	(e)
POLY 1.5	P=0.401N	P=0.242	(e)	(e)	(e)	(e)	(e)	(e)
POLY 6	P=0.386N	P=0.257	(e)	(e)	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	(e)	P=0.265	(e)	(e)	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.409N	P=0.247	(e)	(e)	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.254N	(e)						
<b>Skin Basal Cell Adenoma</b>								
Dose	CONTROL	100 PPM	200 PPM	400 PPM	CONTROL	100 PPM	200 PPM	400 PPM
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	1/50 (2%)	3/50 (6%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/43.15	0/45.38	1/44.58	3/44.93	0/42.30	0/43.50	0/43.84	0/37.73
POLY-3 PERCENT (g)	0.0%	0.0%	2.2%	6.7%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/31 (0%)	0/32 (0%)	3/32 (9%)	7/33 (0%)	0/30 (0%)	0/33 (0%)	0/22 (0%)	---
FIRST INCIDENCE	729 (T)	---	---	---	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.020 *	(e)	P=0.504	P=0.126	(e)	(e)	(e)	(e)
POLY 3	P=0.020 *	(e)	P=0.507	P=0.126	(e)	(e)	(e)	(e)
POLY 1.5	P=0.020 *	(e)	P=0.503	P=0.123	(e)	(e)	(e)	(e)
POLY 6	P=0.020 *	(e)	P=0.512	P=0.128	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.020 *	(e)	P=0.535	P=0.126	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.020 *	(e)	P=0.500	P=0.121	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.023 *	(e)						

Date: 01/31/04

EXPERIMENT: 88004 TEST: 05  
Statistical Analysis of Primary Tumors in Rats (FISCHER 344)

Terminal Sacrifice at 105 weeks

Page 12  
DIVINYLBENZENE

Dose	CONTROL	Males			CONTROL	Females				
		100 PPM	200 PPM	400 PPM		100 PPM	200 PPM	400 PPM		
<b>Skin Basal Cell Adenoma, Basosquamous Tumor Benign, or Trichoepithelioma</b>										
<b>TUMOR RATES</b>										
OVERALL (a)	1/50 (2%)	0/50 (0%)	1/50 (2%)	3/50 (6%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)		
POLY-3 RATE (b)	1/43.15	0/45.38	1/44.58	3/44.93	0/42.30	0/43.50	0/43.84	0/37.73		
POLY-3 PERCENT (g)	2.3%	0.0%	2.2%	6.7%	0.0%	0.0%	0.0%	0.0%		
TERMINAL (d)	1/31 (3%)	0/35 (0%)	0/32 (0%)	3/32 (9%)	0/33 (0%)	0/33 (0%)	0/33 (0%)	0/22 (0%)		
FIRST INCIDENCE	7/29 (T)	---	5/78	7/29 (T)	---	---	---	---		
<b>STATISTICAL TESTS</b>										
LIFE TABLE	P=0.095	P=0.476N	P=0.754N	P=0.316	(e)	(e)	(e)	(e)		
POLY 3	P=0.097	P=0.490N	P=0.753N	P=0.320	(e)	(e)	(e)	(e)		
POLY 1.5	P=0.098	P=0.496N	P=0.758N	P=0.315	(e)	(e)	(e)	(e)		
POLY 6	P=0.096	P=0.482N	P=0.748N	P=0.324	(e)	(e)	(e)	(e)		
LOGISTIC REGRESSION	P=0.096	(e)	P=0.759N	P=0.316	(e)	(e)	(e)	(e)		
COCH-ARM / FISHERS	P=0.097	P=0.500N	P=0.753N	P=0.309	(e)	(e)	(e)	(e)		
ORDER RESTRICTED	P=0.089	(e)								
<b>Skin Basal Cell Carcinoma, Basal Cell Adenoma, Basosquamous Tumor (benign, malignant or NOS), or Trichoepithelioma</b>										
Dose	CONTROL	100 PPM	200 PPM	400 PPM	CONTROL	100 PPM	200 PPM	400 PPM		
<b>TUMOR RATES</b>										
OVERALL (a)	1/50 (2%)	0/50 (0%)	1/50 (2%)	3/50 (6%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)		
POLY-3 RATE (b)	1/43.15	0/45.38	1/44.58	3/44.93	0/42.30	1/43.50	0/43.84	0/37.73		
POLY-3 PERCENT (g)	2.3%	0.0%	2.2%	6.7%	0.0%	2.3%	0.0%	0.0%		
TERMINAL (d)	1/31 (3%)	0/35 (0%)	0/32 (0%)	3/32 (9%)	0/33 (0%)	1/30 (3%)	0/33 (0%)	0/22 (0%)		
FIRST INCIDENCE	7/29 (T)	---	5/78	7/29 (T)	---	7/31 (T)	---	---		
<b>STATISTICAL TESTS</b>										
LIFE TABLE	P=0.095	P=0.476N	P=0.754N	P=0.316	(e)	(e)	(e)	(e)		
POLY 3	P=0.097	P=0.490N	P=0.753N	P=0.320	(e)	(e)	(e)	(e)		
POLY 1.5	P=0.098	P=0.496N	P=0.758N	P=0.315	(e)	(e)	(e)	(e)		
POLY 6	P=0.096	P=0.482N	P=0.748N	P=0.324	(e)	(e)	(e)	(e)		
LOGISTIC REGRESSION	P=0.098	(e)	P=0.759N	P=0.316	(e)	(e)	(e)	(e)		
COCH-ARM / FISHERS	P=0.097	P=0.500N	P=0.753N	P=0.309	(e)	(e)	(e)	(e)		
ORDER RESTRICTED	P=0.089	(e)								

Statistical Analysis of Primary Tumors in Rats(FISCHER 344) - Terminal Sacrifice at 105 weeks

DIVINYLBENZENE

Dose	Males				Females			
	CONTROL	100 PPM	200 PPM	400 PPM	CONTROL	100 PPM	200 PPM	400 PPM
<b>Skin</b>								
Basal or Sq. Cell Carcinoma, Carcinoma, Basosq. Tumor (M or B), Basal Cell Adenoma, Adenoma, Papilloma, Sq Papilloma, Keratoacanthoma, Trichoepithelium								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	2/50 (4%)	0/50 (0%)	1/50 (2%)	3/50 (6%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/43.52	0/45.38	1/44.58	3/44.93	0/42.30	1/43.50	0/43.84	0/37.73
POLY-3 PERCENT (g)	4.6%	0.0%	2.2%	6.7%	0.0%	2.3%	0.0%	0.0%
TERMINAL (d)	1/31 (3%)	0/35 (0%)	3/32 (9%)	1/30 (3%)	0/33 (0%)	1/30 (3%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	623	578	729 (T)	731 (T)	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.243	P=0.217N	P=0.491N	P=0.518	P=0.625N	P=0.481	(e)	(e)
POLY 3	P=0.241	P=0.228N	P=0.492N	P=0.515	P=0.563N	P=0.506	(e)	(e)
POLY 1.5	P=0.244	P=0.233N	P=0.497N	P=0.510	P=0.565N	P=0.504	(e)	(e)
POLY 6	P=0.237	P=0.221N	P=0.485N	P=0.518	P=0.561N	P=0.504	(e)	(e)
LOGISTIC REGRESSION	P=0.239	P=0.239N	P=0.488N	P=0.518	P=0.561N	P=0.481	(e)	(e)
COCH-ARM / FISHERS	P=0.242	P=0.247N	P=0.500N	P=0.500	P=0.567N	P=0.500	(e)	(e)
ORDER RESTRICTED	P=0.195	(e)	(e)	(e)	P=0.405N	(e)	(e)	(e)
<b>Skin</b>								
Fibroma								
Dose	CONTROL	100 PPM	200 PPM	400 PPM	CONTROL	100 PPM	200 PPM	400 PPM
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	5/50 (10%)	7/50 (14%)	4/50 (8%)	3/50 (6%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	5/44.12	7/45.64	4/44.07	3/45.64	0/42.30	0/43.50	0/43.84	0/37.73
POLY-3 PERCENT (g)	11.3%	15.3%	9.1%	6.6%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	3/31 (10%)	6/35 (17%)	4/32 (13%)	1/32 (3%)	0/33 (0%)	0/33 (0%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	536	659	729 (T)	569	---	---	---	---
STATISTICAL TESTS	#	#	#	#	#	#	#	#
LIFE TABLE	P=0.194N	P=0.457	P=0.483N	P=0.334N	(e)	(e)	(e)	(e)
POLY 3	P=0.183N	P=0.403	P=0.501N	P=0.338N	(e)	(e)	(e)	(e)
POLY 1.5	P=0.187N	P=0.388	P=0.504N	P=0.344N	(e)	(e)	(e)	(e)
POLY 6	P=0.180N	P=0.424	P=0.498N	P=0.332N	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.191N	P=0.387	P=0.497N	P=0.406N	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.196N	P=0.380	P=0.500N	P=0.357N	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.235N	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Analysis of Primary Tumors in Rats(FISCHER 344 Terminal Sacrifice at 105 weeks

## of Primary Tumors in Rats (FISCHER) Terminal Sacrifice at 105 weeks

Dose	CONTROL			100 PPM			200 PPM			400 PPM			Females		
	Males	200 PPM	400 PPM	CONTROL	100 PPM	200 PPM	400 PPM	CONTROL	100 PPM	200 PPM	400 PPM	CONTROL	100 PPM	200 PPM	
<b>Skin Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma</b>															
TUMOR RATES	#	#	#	#	#	#	#	#	#	#	#	#	#	#	
OVERALL (a)	6/50 (12%)	8/50 (16%)	4/50 (8%)	5/50 (10%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
POLY-3 RATE (b)	6/44.15	8/45.71	4/44.07	5/45.67	0/42.30	0/43.50	0/43.84	0/43.50	0/43.50	0/43.50	0/43.84	0/43.84	0/43.84	0/43.84	
POLY-3 PERCENT (g)	13.6%	17.5%	9.1%	11.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
TERMINAL (d)	3/31 (10%)	6/35 (17%)	4/32 (13%)	2/32 (6%)	0/33 (0%)	0/30 (0%)	0/33 (0%)	0/33 (0%)	0/33 (0%)	0/33 (0%)	0/33 (0%)	0/33 (0%)	0/33 (0%)	0/33 (0%)	
FIRST INCIDENCE	536	659	729 (T)	569	---	---	---	---	---	---	---	---	---	---	
<b>STATISTICAL TESTS</b>															
LIFE TABLE	P=0.312N	P=0.476	P=0.353N	P=0.469N	(e)										
POLY 3	P=0.297N	P=0.413	P=0.370N	P=0.476N	(e)										
POLY 1.5	P=0.302N	P=0.396	P=0.373N	P=0.484N	(e)										
POLY 6	P=0.295N	P=0.437	P=0.367N	P=0.469N	(e)										
LOGISTIC REGRESSION	P=0.303N	P=0.399	P=0.365N	P=0.525N	(e)										
COCH-ARM / FISHERS	P=0.313N	P=0.387	P=0.370N	P=0.500N	(e)										
ORDER RESTRICTED	P=0.343N	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	(e)	
Dose	CONTROL	100 PPM	200 PPM	400 PPM	CONTROL	100 PPM	200 PPM	400 PPM	CONTROL	100 PPM	200 PPM	400 PPM	CONTROL	100 PPM	200 PPM

- 7 -

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TUMOR RATES		STATISTICAL TESTS	
OVERALL (a)	38/50 (76%)	45/50 (90%)	P=0.400 P=0.298
POLY-3 RATE (b)	38/46.19	45/48.30	P=0.075 P=0.232
POLY-3 PERCENT (g)	82.3%	93.2%	P=0.052 P=0.174
TERMINAL (d)	30/31 (97%)	33/35 (94%)	P=0.124 P=0.329
FIRST INCIDENCE	543	393	P=0.67 P=0.154
			P=0.054 P=0.154
			P=0.191 P=0.227 (e)
LIFE TABLE		LOGISTIC REGRESSION	
POLY 3	B=0.509	P=0.067	P=0.397
POLY 1.5	B=0.427	P=0.052	P=0.390
POLY 6	B=0.527N	P=0.124	P=0.317
COCH-ARM / FISHERS ORDER RESTRICTED	P=0.393	P=0.067	P=0.499
			P=0.335
			P=0.154
			P=0.227 (e)

Statistical Analysis of Primary Tumors in Rats(FISCHER 344)  
Terminal Sacrifice at 105 weeks

DIVINYLBENZENE

Dose	Males				Females			
	CONTROL	100 PPM	200 PPM	400 PPM	CONTROL	100 PPM	200 PPM	400 PPM
<b>Thyroid Gland: C-Cell Adenoma</b>								
<b>TUMOR RATES</b>								
OVERALL (a)	2/50 (4%)	5/50 (10%)	2/50 (4%)	2/49 (4%)	0/50 (0%)	5/50 (10%)	1/50 (2%)	4/50 (8%)
POLY-3 RATE (b)	2/43.15	5/45.65	2/44.07	2/43.95	0/42.30	5/44.49	1/43.84	4/38.55
POLY-3 PERCENT (g)	4.6%	11.0%	4.5%	4.6%	0.0%	11.2%	2.3%	10.4%
TERMINAL (d)	2/31 (7%)	4/35 (11%)	2/32 (6%)	2/32 (6%)	0/33 (0%)	3/30 (10%)	1/33 (3%)	2/22 (9%)
FIRST INCIDENCE	7.29 (T)	654	729 (T)	729 (T)	506	731 (T)	563	
<b>STATISTICAL TESTS</b>								
LIFE TABLE	P=0.397N	P=0.270	P=0.684N	P=0.684N	P=0.088	P=0.033 *	P=0.500	P=0.035 *
POLY 3	P=0.388N	P=0.239	P=0.686N	P=0.687N	P=0.134	P=0.035 *	P=0.507	P=0.049 *
POLY 1.5	P=0.395N	P=0.227	P=0.691N	P=0.692N	P=0.145	P=0.033 *	P=0.505	P=0.054
POLY 6	P=0.383N	P=0.258	P=0.680N	P=0.683N	P=0.115	P=0.035 *	P=0.509	P=0.040 *
LOGISTIC REGRESSION	P=0.395N	P=0.252	P=0.684N	P=0.684N	P=0.163	P=0.031 *	P=0.509	P=0.059
COCHRAN / FISHERS	P=0.406N	P=0.218	P=0.691N	P=0.684	P=0.162	P=0.028 *	P=0.500	P=0.059
ORDER RESTRICTED	P=0.414N	(e)	(e)	(e)	P=0.035 *	(e)	(e)	(e)
<b>Thyroid Gland: C-Cell Carcinoma or Adenoma</b>								
<b>TUMOR RATES</b>								
OVERALL (a)	3/50 (6%)	5/50 (10%)	2/50 (4%)	3/49 (6%)	1/50 (2%)	6/50 (12%)	2/50 (4%)	4/50 (8%)
POLY-3 RATE (b)	3/43.15	5/45.65	2/44.07	3/43.95	1/42.37	6/44.66	2/43.91	4/38.55
POLY-3 PERCENT (g)	7.0%	11.0%	4.5%	6.8%	2.4%	13.4%	4.6%	10.4%
TERMINAL (d)	3/31 (10%)	4/35 (11%)	2/32 (6%)	3/32 (9%)	0/33 (0%)	3/30 (10%)	1/33 (3%)	2/22 (9%)
FIRST INCIDENCE	7.29 (T)	654	729 (T)	729 (T)	506	715	563	
<b>STATISTICAL TESTS</b>								
LIFE TABLE	P=0.443N	P=0.426	P=0.485N	P=0.650N	P=0.194	P=0.058	P=0.503	P=0.101
POLY 3	P=0.438N	P=0.388	P=0.490N	P=0.654N	P=0.282	P=0.064	P=0.512	P=0.150
POLY 1.5	P=0.443N	P=0.370	P=0.497N	P=0.660N	P=0.304	P=0.062	P=0.508	P=0.163
POLY 6	P=0.435N	P=0.412	P=0.482N	P=0.649N	P=0.246	P=0.065	P=0.515	P=0.129
LOGISTIC REGRESSION	P=0.442N	P=0.410	P=0.485N	P=0.650N	P=0.320	P=0.056	P=0.514	P=0.164
COCHRAN / FISHERS	P=0.453N	P=0.357	P=0.500N	P=0.651	P=0.056	P=0.500	P=0.181	
ORDER RESTRICTED	P=0.441N	(e)	(e)	(e)	P=0.143	(e)	(e)	(e)

Date: 01/31/04

EXPERIMENT: 88004 TEST: 05  
Statistical Analysis of Primary Tumors in Rats (FISCHER 344)  
Terminal Sacrifice at 105 weeksPage 16  
DIVINYLBENZENE

Dose	Males			Females				
	CONTROL	100 PPM	200 PPM	400 PPM	CONTROL	100 PPM	200 PPM	400 PPM
<b>TUMOR RATES</b>								
# # # # # # # # #								
OVERALL (a)					9/50 (18%)	6/50 (12%)	8/50 (16%)	7/50 (14%)
POLY-3 RATE (b)					9/42 59	6/44 04	8/45 13	7/38 66
POLY-3 PERCENT (g)					21.1%	13.6%	17.7%	18.1%
TERMINAL (d)					7/33 (21%)	3/30 (10%)	5/33 (15%)	4/22 (18%)
FIRST INCIDENCE					687	670	481	589
<b>STATISTICAL TESTS</b>								
LIFE TABLE					P=0.405	P=0.341N	P=0.484N	P=0.498
POLY 3					P=0.501N	P=0.261N	P=0.447N	P=0.475N
POLY 1.5					P=0.466N	P=0.269N	P=0.466N	P=0.435N
POLY 6					P=0.541	P=0.261N	P=0.433N	P=0.547N
LOGISTIC REGRESSION					P=0.510N	P=0.269N	P=0.478N	P=0.563N
COCH-ARM / FISHERS					P=0.420N	P=0.288N	P=0.500N	P=0.393N
ORDER RESTRICTED					P=0.464N	(e)	(e)	(e)
<b>TUMOR RATES</b>								
# # # # # # # # #								
LIFE TABLE					0/50 (0%)	2/50 (4%)	0/50 (0%)	0/50 (0%)
POLY 3					0/42 30	2/44 05	0/43 84	0/37 73
POLY 1.5					0.0%	4.5%	0.0%	0.0%
POLY 6					0/33 (0%)	1/30 (3%)	0/33 (0%)	0/22 (0%)
LOGISTIC REGRESSION					--	561	--	--
COCH-ARM / FISHERS								
ORDER RESTRICTED								
<b>TUMOR RATES</b>								
# # # # # # # # #								
LIFE TABLE					P=0.441N	P=0.239	(e)	(e)
POLY 3					P=0.412N	P=0.246	(e)	(e)
POLY 1.5					P=0.408N	P=0.243	(e)	(e)
POLY 6					P=0.422N	P=0.246	(e)	(e)
LOGISTIC REGRESSION					P=0.385N	P=0.221	(e)	(e)
COCH-ARM / FISHERS					P=0.405N	P=0.247	(e)	(e)
ORDER RESTRICTED					P=0.279N	(e)	(e)	(e)

Dose	Males				Females			
	CONTROL	100 PPM	200 PPM	400 PPM	CONTROL	100 PPM	200 PPM	400 PPM
<b>Uterus</b>								
Sarcoma Stromal or Polyp Stromal								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)								
POLY-3 RATE (b)								
POLY-3 PERCENT (g)								
TERMINAL (d)								
FIRST INCIDENCE								
STATISTICAL TESTS								
LIFE TABLE								
POLY 3								
POLY 1.5								
POLY 6								
LOGISTIC REGRESSION								
COCH-ARM / FISHERS								
ORDER RESTRICTED								
Dose	CONTROL	100 PPM	200 PPM	400 PPM	CONTROL	100 PPM	200 PPM	400 PPM
<b>Zymbal's Gland</b>								
Carcinoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	2/50 (4%)
POLY-3 RATE (b)	0/43.15	0/45.38	2/44.21	0/44.93	1/42.47	0/43.50	0/43.84	2/38.13
POLY-3 PERCENT (g)	0.0%	0.0%	4.5%	0.0%	2.4%	0.0%	0.0%	5.3%
TERMINAL (d)	0/31 (0%)	0/35 (0%)	1/32 (3%)	0/32 (0%)	0/33 (0%)	0/30 (0%)	0/33 (0%)	1/22 (5%)
FIRST INCIDENCE	---	---	694	---	687	---	---	617
STATISTICAL TESTS								
LIFE TABLE	P=0.596 (e)	P=0.252 (e)	P=0.252 (e)	P=0.173 (e)	P=0.505N P=0.500N (e)	P=0.505N P=0.494N (e)	P=0.500N P=0.494N (e)	P=0.382 P=0.462 (e)
POLY 3	P=0.609 (e)	P=0.242 (e)	P=0.242 (e)	P=0.233 (e)	P=0.495N P=0.495N (e)	P=0.495N P=0.495N (e)	P=0.495N P=0.495N (e)	P=0.480 P=0.480 (e)
POLY 1.5	P=0.607 (e)	P=0.239 (e)	P=0.239 (e)	P=0.237 (e)	P=0.496N P=0.496N (e)	P=0.496N P=0.496N (e)	P=0.496N P=0.496N (e)	P=0.481 P=0.481 (e)
POLY 6	P=0.609 (e)	P=0.247 (e)	P=0.247 (e)	P=0.228 (e)	P=0.497N P=0.497N (e)	P=0.497N P=0.497N (e)	P=0.497N P=0.497N (e)	P=0.431 P=0.431 (e)
LOGISTIC REGRESSION	P=0.600 (e)	P=0.243 (e)	P=0.243 (e)	P=0.243 (e)	P=0.499N P=0.499N (e)	P=0.499N P=0.499N (e)	P=0.499N P=0.499N (e)	P=0.486 P=0.486 (e)
COCH-ARM / FISHERS	P=0.595 (e)	P=0.247 (e)	P=0.247 (e)	P=0.246 (e)	P=0.500N P=0.500N (e)	P=0.500N P=0.500N (e)	P=0.500N P=0.500N (e)	P=0.500 P=0.500 (e)
ORDER RESTRICTED	P=0.252 (e)	P=0.105 (e)	P=0.105 (e)	P=0.105 (e)				

is of Primary Tumors in Rats (FISCHER 344)  
Terminal Sacrifice at 105 weeks

#### Effect of Primary Tumors in Rats (FISCH)

Dose	Males			Females		
	CONTROL	100 PPM	400 PPM	CONTROL	100 PPM	200 PPM
<b>All Organs</b>						
Histiocytic Sarcoma						
TUMOR RATES	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)
POLY-3 RATE (b)	1/43 .15	0/43 .38	0/44 .07	0/44 .93	2/43 .70	0/43 .50
POLY-3 PERCENT (g)	2.3%	0.0%	0.0%	0.0%	4.6%	0.0%
TERMINAL (d)	1/31 (3%)	0/35 (0%)	0/32 (0%)	0/32 (0%)	0/33 (0%)	0/33 (0%)
FIRST INCIDENCE	729 (T)	---	---	436	---	---
STATISTICAL TESTS						
LIFE TABLE	P=0 .305N	P=0 .476N	P=0 .494N	P=0 .115N	P=0 .232N	P=0 .237N
POLY 3	P=0 .314N	P=0 .490N	P=0 .496N	P=0 .492N	P=0 .238N	P=0 .236N
POLY 1 .5	P=0 .310N	P=0 .496N	P=0 .495N	P=0 .495N	P=0 .237N	P=0 .255N
POLY 6	P=0 .319N	P=0 .482N	P=0 .492N	P=0 .489N	P=0 .242N	P=0 .237N
LOGISTIC REGRESSION	P=0 .305N	(e)	(e)	P=0 .051N	P=0 .306N	P=0 .137N
COCH-ARM / FISHERS	P=0 .306N	P=0 .500N	P=0 .500N	P=0 .115N	P=0 .247N	P=0 .247N
ORDER RESTRICTED	P=0 .113N	(e)	(e)	P=0 .043N*	(e)	(e)
Dose						
Males	CONTROL	100 PPM	200 PPM	400 PPM	CONTROL	100 PPM
Females						
<b>All Organs</b>						
Leukemia: Lymphocytic, Monocytic, Mononuclear, or Undifferentiated						
TUMOR RATES	#	#	#	#	#	#
OVERALL (a)	22/50 (44%)	13/50 (26%)	14/50 (28%)	10/50 (20%)	18/50 (36%)	22/50 (44%)
POLY-3 RATE (b)	22/47 .44	13/46 .73	14/45 .29	10/46 .51	18/46 .27	22/46 .74
POLY-3 PERCENT (g)	46.4%	27.8%	30.9%	21.5%	23.0%	47.1%
TERMINAL (d)	9/31 (29%)	6/35 (17%)	9/32 (28%)	4/32 (13%)	6/33 (18%)	12/33 (36%)
FIRST INCIDENCE	355	569	544	569	477	481
STATISTICAL TESTS						
LIFE TABLE	P=0 .022N*	P=0 .039N*	P=0 .086N	P=0 .016N*	P<0 .001 *	P=0 .067
POLY 3	P=0 .013N*	P=0 .047N*	P=0 .092N	P=0 .008N**	P=0 .008 *	P=0 .021 *
POLY 1 .5	P=0 .012N*	P=0 .049N*	P=0 .086N	P=0 .008N**	P=0 .009 **	P=0 .013 *
POLY 6	P=0 .014N*	P=0 .044N*	P=0 .103N	P=0 .009N**	P=0 .007 **	P=0 .007 **
LOGISTIC REGRESSION	P=0 .014N*	P=0 .050N	P=0 .072N	P=0 .014N*	P=0 .012 *	P=0 .015 *
COCH-ARM / FISHERS	P=0 .013N*	P=0 .046N*	P=0 .072N	P=0 .009N**	P=0 .011 *	P=0 .011 *
ORDER RESTRICTED	P=0 .005N**	(e)	(e)	P=0 .009 *	P=0 .009 *	P=0 .009 **

EXPERIMENT: 88004 TEST: 05  
Terminal Sacrifice at 105 weeks

Dose	Males				Females			
	CONTROL	100 PPM	200 PPM	400 PPM	CONTROL	100 PPM	200 PPM	400 PPM
<b>All Organs</b>								
Mesothelioma: Benign, Malignant, NOS								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	2/50 (4%)	2/50 (4%)	1/50 (2%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/43.35	2/45.38	1/44.28	2/45.47	0/42.30	0/43.50	0/43.84	0/37.73
POLY-3 PERCENT (g)	4.6%	4.4%	2.3%	4.4%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	1/31 (3%)	2/35 (6%)	0/32 (0%)	1/32 (3%)	0/33 (0%)	0/33 (0%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	675	729 (T)	676	562	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.566N	P=0.649N	P=0.475N	P=0.670N	(e)	(e)	(e)	(e)
POLY 3	P=0.567N	P=0.678N	P=0.493N	P=0.677N	(e)	(e)	(e)	(e)
POLY 1.5	P=0.570N	P=0.687N	P=0.498N	P=0.683N	(e)	(e)	(e)	(e)
POLY 6	P=0.566N	P=0.669N	P=0.486N	P=0.671N	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.579N	P=0.669N	P=0.499N	P=0.674N	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.577N	P=0.691N	P=0.500N	P=0.691N	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.593N	(e)						
<b>All Organs</b>								
Mesothelioma: Malignant								
Dose	CONTROL	100 PPM	200 PPM	400 PPM	CONTROL	100 PPM	200 PPM	400 PPM
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	2/50 (4%)	2/50 (4%)	1/50 (2%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/43.35	2/45.38	1/44.28	2/45.47	0/42.30	0/43.50	0/43.84	0/37.73
POLY-3 PERCENT (g)	4.6%	4.4%	2.3%	4.4%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	1/31 (3%)	2/35 (6%)	0/32 (0%)	1/32 (3%)	0/33 (0%)	0/33 (0%)	0/33 (0%)	0/22 (0%)
FIRST INCIDENCE	675	729 (T)	676	562	---	---	---	---
STATISTICAL TESTS	#	#	#	#	#	#	#	#
LIFE TABLE	P=0.566N	P=0.649N	P=0.475N	P=0.670N	(e)	(e)	(e)	(e)
POLY 3	P=0.567N	P=0.678N	P=0.493N	P=0.677N	(e)	(e)	(e)	(e)
POLY 1.5	P=0.570N	P=0.687N	P=0.498N	P=0.683N	(e)	(e)	(e)	(e)
POLY 6	P=0.566N	P=0.669N	P=0.486N	P=0.671N	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.579N	P=0.669N	P=0.499N	P=0.674N	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.577N	P=0.691N	P=0.500N	P=0.691N	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.593N	(e)						

Date: 01/31/04

EXPERIMENT: 88004 TEST: 05  
 Statistical Analysis of Primary Tumors in Rats (FISCHER 344)  
 Terminal Sacrifice at 105 weeks

Page 20  
 DIVINYLBENZENE

Dose	CONTROL	Males			CONTROL	Females				
		100 PPM	200 PPM	400 PPM		100 PPM	200 PPM	400 PPM		
<b>All Organs Osteosarcoma</b>										
<b>TUMOR RATES</b>										
OVERALL (a)	#	#	#	#	#	#	#	#		
POLY-3 RATE (b)	1/50 (2%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	1/50 (2%)		
POLY-3 PERCENT (g)	2.3%	2.4%	0.0%	0.0%	0.0%	1/44.21	0/43.84	1/37.73		
TERMINAL (d)	0/31 (0%)	1/35 (3%)	0/32 (0%)	0/32 (0%)	0/33 (0%)	2.3%	0.0%	2.7%		
FIRST INCIDENCE	536	605	---	---	487	0/30 (0%)	0/33 (0%)	1/22 (5%)		
<b>STATISTICAL TESTS</b>										
LIFE TABLE	P=0.187N	P=0.522	P=0.500N	P=0.496N	P=0.373	P=0.517	P=0.419	P=0.419		
POLY 3	P=0.184N	P=0.516	P=0.499N	P=0.495N	P=0.378	P=0.509	P=0.477	P=0.477		
POLY 1.5	P=0.186N	P=0.507	P=0.500N	P=0.496N	P=0.391	P=0.506	P=0.488	P=0.488		
POLY 6	P=0.182N	P=0.529	P=0.496N	P=0.493N	P=0.357	P=0.509	P=0.558	P=0.558		
LOGISTIC REGRESSION	P=0.197N	P=0.516	P=0.442N	P=0.674N	P=0.454	P=0.435	P=0.419	P=0.419		
COCH-ARM / FISHERS	P=0.188N	P=0.506	P=0.500N	P=0.500N	P=0.405	P=0.500	P=0.500	P=0.500		
ORDER RESTRICTED	P=0.171N	(e)	(e)	(e)	P=0.229	(e)	(e)	(e)		
<b>All Organs Osteosarcoma or Osteoma</b>										
<b>TUMOR RATES</b>										
OVERALL (a)	#	#	#	#	#	#	#	#		
POLY-3 RATE (b)	1/50 (2%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	1/50 (2%)		
POLY-3 PERCENT (g)	2.3%	2.4%	0.0%	0.0%	0.0%	1/44.21	0/43.84	1/37.73		
TERMINAL (d)	0/31 (0%)	1/35 (3%)	0/32 (0%)	0/32 (0%)	0/33 (0%)	2.3%	0.0%	2.7%		
FIRST INCIDENCE	536	605	---	---	487	0/30 (0%)	0/33 (0%)	1/22 (5%)		
<b>STATISTICAL TESTS</b>										
LIFE TABLE	P=0.187N	P=0.522	P=0.500N	P=0.496N	P=0.373	P=0.517	P=0.419	P=0.419		
POLY 3	P=0.184N	P=0.516	P=0.499N	P=0.495N	P=0.378	P=0.509	P=0.477	P=0.477		
POLY 1.5	P=0.186N	P=0.507	P=0.500N	P=0.496N	P=0.391	P=0.506	P=0.488	P=0.488		
POLY 6	P=0.182N	P=0.529	P=0.496N	P=0.493N	P=0.357	P=0.509	P=0.558	P=0.558		
LOGISTIC REGRESSION	P=0.197N	P=0.516	P=0.442N	P=0.674N	P=0.454	P=0.435	P=0.419	P=0.419		
COCH-ARM / FISHERS	P=0.188N	P=0.506	P=0.500N	P=0.500N	P=0.405	P=0.500	P=0.500	P=0.500		
ORDER RESTRICTED	P=0.171N	(e)	(e)	(e)	P=0.229	(e)	(e)	(e)		

Dose	Males				Females			
	CONTROL	100 PPM	200 PPM	400 PPM	CONTROL	100 PPM	200 PPM	400 PPM
<b>All Organs</b>								
<b>Benign Tumors</b>								
<b>TUMOR RATES</b>	#	#	#	#	#	#	#	#
OVERALL (a)	49/50 (98%)	49/50 (98%)	48/50 (96%)	48/50 (96%)	43/50 (86%)	42/50 (84%)	45/50 (90%)	36/50 (72%)
POLY-3 RATE (b)	49/49 .12	49/49 .00	48/48 .98	48/49 .17	43/46 .94	42/47 .57	45/48 .01	36/43 .88
POLY-3 PERCENT (g)	99.8%	100.0%	98.0%	97.6%	91.6%	88.3%	93.7%	82.0%
TERMINAL (d)	31/31 (100%)	35/35 (100%)	32/32 (100%)	32/32 (100%)	31/33 (94%)	26/30 (87%)	32/33 (97%)	20/22 (91%)
FIRST INCIDENCE	506	393	460	562	455	374	481	523
<b>STATISTICAL TESTS</b>								
LIFE TABLE	P=0 .432N	P=0 .210N	P=0 .385N	P=0 .361N	P=0 .151	P=0 .459	P=0 .468	P=0 .207
POLY 3	P=0 .198N	P=1 .000	P=0 .554N	P=0 .477N	P=0 .103N	P=0 .418N	P=0 .498	P=0 .114N
POLY 1.5	P=0 .980	P=1 .000	P=0 .446N	P=0 .608N	P=0 .066N	P=0 .437N	P=0 .446	P=0 .084N
POLY 6	P=0 .281N	P=1 .000	P=0 .526N	P=0 .626N	P=0 .248N	P=0 .428N	P=0 .537	P=0 .244N
LOGISTIC REGRESSION	P=0 .110N	(e)	P=0 .629N	P=0 .198N	P=0 .095N	P=0 .363N	P=0 .505	P=0 .111N
COCH-ARM / FISHERS	P=0 .337N	P=0 .753N	P=0 .500N	P=0 .500N	P=0 .043N*	P=0 .500N	P=0 .380	P=0 .070N
ORDER RESTRICTED	P=0 .184N	(e)	(e)	(e)	P=0 .078N	(e)	(e)	(e)
<b>Dose</b>								
<b>Males</b>								
	CONTROL	100 PPM	200 PPM	400 PPM	CONTROL	100 PPM	200 PPM	400 PPM
<b>All Organs</b>								
<b>Malignant Tumors</b>								
<b>TUMOR RATES</b>	#	#	#	#	#	#	#	#
OVERALL (a)	29/50 (58%)	20/50 (40%)	24/50 (48%)	18/50 (36%)	17/50 (34%)	27/50 (54%)	28/50 (56%)	27/50 (54%)
POLY-3 RATE (b)	29/48 .05	20/48 .14	24/45 .66	18/47 .96	17/45 .21	27/48 .77	28/48 .74	27/45 .16
POLY-3 PERCENT (g)	60.4%	41.6%	52.6%	37.5%	37.6%	55.4%	57.5%	59.8%
TERMINAL (d)	15/31 (48%)	10/35 (29%)	16/32 (50%)	6/32 (19%)	9/33 (27%)	11/30 (37%)	14/33 (42%)	8/22 (36%)
FIRST INCIDENCE	355	393	544	562	436	374	374	516
<b>STATISTICAL TESTS</b>								
LIFE TABLE	P=0 .069N	P=0 .046N*	P=0 .211N	P=0 .040N*	P=0 .008 **	P=0 .055	P=0 .059	P=0 .008 **
POLY 3	P=0 .037N*	P=0 .048N*	P=0 .288N	P=0 .18N*	P=0 .038 *	P=0 .062	P=0 .040 *	P=0 .025 *
POLY 1.5	P=0 .032N*	P=0 .033N	P=0 .265N	P=0 .19N*	P=0 .042 *	P=0 .050	P=0 .032 *	P=0 .027 *
POLY 6	P=0 .038N*	P=0 .042N*	P=0 .322N	P=0 .18N*	P=0 .031 *	P=0 .074	P=0 .048 *	P=0 .021 *
LOGISTIC REGRESSION	P=0 .042N*	P=0 .061N	P=0 .210N	P=0 .032N*	P=0 .082	P=0 .027 *	P=0 .018 *	P=0 .040 *
COCH-ARM / FISHERS	P=0 .040N*	P=0 .055N	P=0 .212N	P=0 .022N*	P=0 .055 *	P=0 .035 *	P=0 .022	P=0 .035 *
ORDER RESTRICTED	P=0 .014N*	(e)	(e)	(e)	P=0 .024 *	(e)	(e)	(e)

Date: 01/31/04

EXPERIMENT: 88004 TBST: 05  
 Statistical Analysis of Primary Tumors in Rats (FISCHER 344)  
 Terminal Sacrifice at 105 weeks

Page 22  
 DIVINYLBENZENE

Dose	Males		Females					
	CONTROL	100 PPM	200 PPM	400 PPM	CONTROL	100 PPM	200 PPM	400 PPM
<b>All Organs</b>								
Malignant and Benign Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	50/50 (100%)	49/50 (98%)	49/50 (98%)	49/50 (98%)	46/50 (92%)	46/50 (92%)	49/50 (98%)	47/50 (94%)
POLY-3 RATE (b)	50/50.00	49/49.00	49/49.00	49/49.35	46/48.43	46/50.00	49/50.00	47/48.56
POLY-3 PERCENT (g)	100.0%	100.0%	100.0%	99.3%	95.0%	92.0%	98.0%	96.8%
TERMINAL (d)	31/31 (100%)	35/35 (100%)	32/32 (100%)	32/32 (100%)	31/33 (94%)	26/30 (87%)	32/33 (97%)	21/22 (96%)
FIRST INCIDENCE	355	393	460	562	336	374	374	516
STATISTICAL TESTS								
LIFE TABLE								
POLY 3	P=0.457N	P=0.167N	P=0.388N	P=0.362N	P=0.010 *	P=0.412	P=0.411	P=0.020 *
POLY 1.5	P=0.660N	P=1.000N	P=1.000N	P=0.968N	P=0.276	P=0.423N	P=0.391	P=0.528
POLY 6	P=0.366N	P=1.000N	P=1.000N	P=0.754N	P=0.265	P=0.500N	P=0.298	P=0.483
LOGISTIC REGRESSION	P=1.000N	P=1.000N	P=1.000N	P=1.000N	P=0.272	P=0.371N	P=0.465	P=0.547
COCH-ARM / FISHERS	P=0.062N	(e)	P=0.000N	P=0.288N	P=0.266	P=0.620N	P=0.208	P=0.387
ORDER RESTRICTED	P=0.384N	P=0.500N	P=0.500N	P=0.500N	P=0.344	P=0.643N	P=0.181	P=0.500
(a)	Number of tumor-bearing animals	/	number of animals examined at site.		(e)		(e)	
(b)	Number of tumor-bearing animals	/	Poly-3 number					
(d)	Observed incidence at terminal kill.							
(f)	Beneath the control incidence are the P-values associated with the trend test. Beneath the dosed group incidence are the P-values corresponding to pairwise comparisons between the controls and that dosed group. The life table analysis regards tumors in animals dying prior to terminal kill as being (directly or indirectly) the cause of death.							
(g)	Logistic regression is an alternative method for analyzing the incidence of non-fatal tumors. The Cochran-Armitage and Fishers exact tests compare directly the overall incidence rates for all tests a negative trend is indicated by N							
(e)	Value of Statistic cannot be computed.							
(I)	Poly-3 adjusted lifetime tumor incidence.							
(T)	Interim sacrifice							
(T)	Terminal sacrifice							
#	Tumor rates based on number of animals necropsied.							
*	To the right of any statistical result, indicates significance at (P<=0.05).							
**	To the right of any statistical result, indicates significance at (P<=0.01).							

(a) Number of tumor-bearing animals / number of animals examined at site.

(b) Number of tumor-bearing animals / Poly-3 number

(d) Observed incidence at terminal kill.

(f) Beneath the control incidence are the P-values associated with the trend test. Beneath the dosed group incidence are the P-values corresponding to pairwise comparisons between the controls and that dosed group. The life table analysis regards tumors in animals dying prior to terminal kill as being (directly or indirectly) the cause of death.

(g) Logistic regression is an alternative method for analyzing the incidence of non-fatal tumors. The Cochran-Armitage and Fishers exact tests compare directly the overall incidence rates for all tests a negative trend is indicated by N

(e) Value of Statistic cannot be computed.

(I) Poly-3 adjusted lifetime tumor incidence.

(T) Interim sacrifice

(T) Terminal sacrifice

# Tumor rates based on number of animals necropsied.

\* To the right of any statistical result, indicates significance at (P&lt;=0.05).

\*\* To the right of any statistical result, indicates significance at (P&lt;=0.01).

NTP Experiment-Test: 88004-05      INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
 Study Type: CHRONIC      WITH AVERAGE SEVERITY GRADES [b]  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 DIVINYLBENZENE

Report: PEIRPT18  
Date: 01/31/04  
Time: 15:01:15

Facility: Battelle Northwest  
Chemical CAS #: 1321-74-0  
Lock Date: 04/16/02  
Cage Range: A11  
Reasons For Removal:  
Removal Date Range:  
Treatment Groups: Include All

a Number of animals examined microscopically at site and number of animals with lesion  
 b Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

1

NTP Experiment-Test: 88004-05  
Study Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
WITH AVERAGE SEVERITY GRADES [b]  
DIVINYLBENZENE

Report: PEIRPT18  
Date: 01/31/04  
Time: 15:01:15

FISCHER 344 RATS FEMALE	CONTROL	100 PPM	200 PPM	400 PPM
<b>DISPOSITION SUMMARY</b>				
Animals Initially In Study	50	50	50	50
Early Deaths	10	16	14	26
Moribund Sacrifice	7	3	3	2
Natural Death		1		
Accidently Killed				
Survivors	33	30	33	22
Terminal Sacrifice				
Animals Examined Microscopically	50	50	50	50

ALIMENTARY SYSTEM

Intestine Large, Colon	(50)	(49)	(49)	(50)
Epithelium, Metaplasia, Focal, Squamous	1 [3.0]	1 [3.0]	1 [3.0]	1 [3.0]
Liver	(50)	(50)	(50)	(50)
Clear Cell Focus	5 [2.0]	7 [2.4]	6 [2.8]	9 [4.0]
Hepatodiaphragmatic Nodule	5 [4.0]	7 [4.0]	6 [3.5]	1 [3.0]
Necrosis				3 [2.0]
Vacuolization	Cytoplasmic			
Bile Duct, Hyperplasia				
Hepatocyte, Regeneration				
Periportal, Inflammation, Chronic				
Portal, Bile Stasis				
Serosa, Fibrosis				
Mesentery				
Necrosis				
Oral Mucosa				
Pharyngeal, Ulcer				
Pancreas				
Acinus, Atrophy				
Salivary Glands				
Inflammation, Chronic				
Stomach, Forestomach				
Hyperplasia, Focal, Squamous				
Ulcer				
Stomach, Glandular				
Erosion				
Ulcer				
Epithelium, Hyperplasia	1 [2.0]	(1)	(3)	(3)
Tongue				
Epithelium, Hyperplasia	1 [4.0]		3 [2.7]	2 [4.0]

a Number of animals examined microscopically at site and number of animals with lesion

b Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

NTP Experiment-Test: 88004-05      INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
Study Type: CHRONIC      WITH AVERAGE SEVERITY GRADES (b)  
Route: RESPIRATORY EXPOSURE WHOLE BODY      DIVINYLBENZENE

Report: PEIRRPT18  
Date: 01/31/04  
Time: 15:01:15

FISCHER 344 RATS FEMALE		CONTROL	100 PPM	200 PPM	400 PPM
<b>ALIMENTARY SYSTEM - CONT</b>					
Tooth			(1)		
Peridental Tissue, Inflammation			1 [4.0]		
Pulp, Inflammation, Suppurative			1 [4.0]		
<b>CARDIOVASCULAR SYSTEM</b>					
Heart		(50)	(50)	(50)	(50)
Cardiomyopathy				3 [1.7]	
Atrium, Thrombosis			1 [4.0]	2 [4.0]	1 [3.0]
Pericardium, Infiltration Cellular, Lymphoid					
<b>ENDOCRINE SYSTEM</b>					
Adrenal Cortex		(50)	(50)	(50)	(50)
Accessory Adrenal Cortical Nodule			1 [2.0]	1 [4.0]	
Hemorrhage			1 [4.0]		1 [2.0]
Hyperplasia			5 [1.8]	7 [1.6]	12 [1.5]
Necrosis			(50)	(50)	(50)
Vacuolization Cytoplasmic		14 [1.9]	1 [2.0]	1 [2.0]	2 [3.0]
Adrenal Medulla		(50)	(49)	(47)	(49)
Hyperplasia					
Parathyroid Gland					
Hyperplasia					
Pituitary Gland		(50)	(50)	(50)	(50)
Cyst		6 [3.5]	6 [2.8]	1 [4.0]	5 [2.8]
Pars Distalis, Angiectasis		1 [3.0]			
Pars Distalis, Hematocyst					
Pars Distalis, Hyperplasia					
Thyroid Gland		4 [3.0]	8 [2.9]	4 [3.0]	1 [4.0]
Ultimobranchial Cyst		1 [2.0]	(50)	(50)	7 [2.3]
C-Cell, Hyperplasia		5 [2.8]	8 [2.0]	6 [1.8]	1 [1.0]
Follicular Cell, Hyperplasia		1 [2.0]		1 [2.0]	
<b>GENERAL BODY SYSTEM</b>					
None					
<b>GENITAL SYSTEM</b>					

a Number of animals examined microscopically at site and number of animals with lesion  
b Average severity grade (1-minimal; 2-moderate; 3-moderate; 4-marked)

NTP Experiment-Test: 88004-05  
Study Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
WITH AVERAGE SEVERITY GRADES [b]  
DIVINYLBENZENE

Report: PERP18  
Date: 01/31/04  
Time: 15:01:15

FISCHER 344 RATS FEMALE		CONTROL	100 PPM	200 PPM	400 PPM
<b>GENITAL SYSTEM - CONT</b>					
Clitoral Gland	(50)	(50)	(50)	(50)	(50)
Cyst	3 [3.7]	1 [4.0]	2 [4.0]	2 [4.0]	2 [4.0]
Hyperplasia	1 [3.0]	3 [4.0]	2 [2.5]		
Inflammation, Chronic	2 [3.5]	1 [2.0]	1 [3.0]		
Ovary	(50)	(50)	(50)	(50)	(50)
Cyst	5 [3.6]	6 [2.7]	11 [3.2]	4 [2.8]	
Bilateral, Cyst	1 [3.0]				
Uterus	(50)	(50)	(50)	(50)	(50)
Hemorrhage					
Necrosis					
Endometrium, Hyperplasia					
Myometrium, Hyperplasia	2 [2.5]	1 [4.0]	1 [3.0]	2 [1.5]	
Vagina					
Inflammation, Suppurative					
Muscularis, Hypertrophy	(2)	1 [4.0]		1 [4.0]	
<b>HEMATOPOIETRIC SYSTEM</b>					
Bone Marrow	(50)	(50)	(50)	(50)	(50)
Myelofibrosis					
Lymph Node	(6)	(10)	(9)	(8)	
Deep Cervical, Infiltration Cellular,					
Histiocyte, Pigmentation					
Pancreatic					
Lymph Node, Bronchial	(8)	(9)	(5)	(14)	
Infiltration Cellular, Histiocyte					
Lymph Node, Mesenteric	(50)	(50)	(50)	(50)	
Infiltration Cellular, Histiocyte					
Pigmentation					
Lymph Node, Mediastinal	(2)	(37)	(44)	(34)	
Fibrosis					
Hyperplasia, Lymphoid					
Infiltration Cellular, Histiocyte					
Inflammation, Suppurative					
Spleen	(50)	(50)	(50)	(50)	
Accessory Spleen					
Fibrosis					
Hematopoietic Cell Proliferation					
Hemorrhage					
Hyperplasia, Focal, Lymphoid					
Inflammation, Chronic Active					
Necrosis					

a Number of animals examined microscopically at site and number of animals with lesion

b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

NTP Experiment-Test: 88004-05  
Study Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
WITH AVERAGE SEVERITY GRADES (b)  
DIVINYLBENZENE

Report: PBIRPT18  
Date: 01/31/04  
Time: 15:01:15

FISCHER 344 RATS FEMALE		CONTROL	100 PPM	200 PPM	400 PPM
HEMATOPOIETIC SYSTEM - CONT'		(45)	(41)	(46)	(39) 1 [4.0]
<b>INTEGUMENTARY SYSTEM</b>					
Mammary Gland	(50) 1 [1.0]	(50) 2 [2.0]	(50)	(50)	(50)
Galactocele					
Hyperplasia					
Inflammation, Chronic					
Skin					
Cyst					
Epithelial Inclusion	(50)	(50) 2 [4.0] 1 [3.0]	(50) 1 [3.0]	(50) 1 [4.0]	(50) 1 [4.0]
Hyperkeratosis					
Inflammation, Granulomatous					
Ulcer					
1 [4.0]			1 [4.0]		
<b>MUSCULOSKELETAL SYSTEM</b>					
Bone	(50)	(50) 1 [4.0]	(50)	(50)	(50)
Joint, Fracture					
Tibia, Fracture					
Skeletal Muscle	(2)	(3) 1 [4.0]	(7) 1 [4.0]		(5)
Inflammation, Chronic					
Necrosis					
1 [4.0]			1 [3.0]		
<b>NERVOUS SYSTEM</b>					
Brain	(50)	(50) 9 [3.1]	(50) 10 [3.1] 1 [1.0]	(50) 11 [2.9]	(50) 7 [3.1]
Compression					
Congestion					
Hemorrhage					
Infarct					
2 [1.0]		2 [4.0]	6 [2.8]	3 [3.7]	
1 [2.0]			1 [2.0]		
<b>RESPIRATORY SYSTEM</b>					
Larynx	(50)	(50) 1 [4.0]	(49) 2 [2.0]	(49) 3 [4.0] 1 [2.0]	(50)
Foreign Body					
Inflammation, Suppurative					
Epiglottis, Metaplasia, Squamous					
Lung					
(50)		(50)	(50)	(50)	(50)

a Number of animals examined microscopically at site and number of animals with lesion  
b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

NTP Experiment-Test: 88004-05  
Study Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
WITH AVERAGE SEVERITY GRADES [b]  
DIVINYLBENZENE

Report: PEIRPT18  
Date: 01/31/04  
Time: 15:01:15

		CONTROL	100 PPM	200 PPM	400 PPM
<b>RESPIRATORY SYSTEM - CONT</b>					
Atrophy		1 [4.0]			
Cyst			1 [4.0]		
Hemorrhage			1 [2.0]	1 [2.0]	1 [3.0]
Foreign Body			1 [4.0]		
Infiltration	Cellular, Histiocyte		1 [2.0]	1 [1.0]	1 [2.0]
Inflammation, Chronic			1 [3.0]		
Inflammation, Chronic, Diffuse			1 [1.3]	22 [1.4]	26 [1.3]
Inflammation, Chronic, Focal			27 [1.3]		
Alveolar Epithelium, Hyperplasia			4 [2.3]	2 [1.5]	3 [1.7]
Alveolus, Epithelium, Hypertrophy			1 [1.0]	1 [1.0]	1 [2.0]
Alveolus, Infiltration Cellular, Focal,			8 [1.1]	3 [1.3]	6 [1.3]
Histiocyte					
Interstitial, Fibrosis					
Mediastinum, Necrosis, Fatty			1 [4.0]		
Nose			(50)	(49)	(49)
Foreign Body			1 [3.0]	1 [2.0]	1 [3.0]
Inflammation, Suppurative			5 [2.4]	12 [1.7]	8 [1.3]
Ulcer			1 [4.0]		
Glands, Dilatation			17 [1.3]	38 [1.3]	44 [1.7]
Goblet Cell, Hyperplasia			3 [1.7]	1 [1.0]	4 [1.5]
Nasolacrimal Duct, Inflammation,			3 [2.0]	1 [3.0]	3 [2.3]
Nasopharyngeal Duct, Inflammation,					
Suppurative					
Olfactory Epithelium, Degeneration			1 [3.0]		
Olfactory Epithelium, Degeneration, Hyaline			50 [1.5]	49 [1.8]	48 [2.0]
Olfactory Epithelium, Basal Cell			14 [1.1]	15 [1.1]	4 [1.0]
Olfactory Epithelium, Hyperplasia, Basal Cell			25 [1.0]	42 [1.3]	45 [1.8]
Olfactory Epithelium, Regeneration, Focal			1 [1.0]		
Respiratory Epithelium, Degeneration, Hyaline			5 [1.8]	3 [2.0]	4 [1.3]
Respiratory Epithelium, Degeneration, Hyaline			1 [2.0]	1 [3.0]	1 [2.0]
Respiratory Epithelium, Hyperplasia					
Pleura					
Fibrosis			(50)	(50)	(49)
Infiltration Cellular, Lymphoid			1 [2.0]		
Trachea			(50)	(50)	(50)
Glands, Degeneration, Cystic				1 [1.0]	1 [2.0]
<b>SPECIAL SENSES SYSTEM</b>					
Eye					
Atrophy			(50)	(48)	(49)
Inflammation, Chronic			1 [1.0]		
Anterior Chamber, Hemorrhage			1 [4.0]		

a Number of animals examined microscopically at site and number of animals with lesion  
b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

NTP Experiment-Test: 88004-05  
Study Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
WITH AVERAGE SEVERITY GRADES [b]  
DIVINYLBENZENE

Report: PEIRPT18  
Date: 01/31/04  
Time: 15:01:15

FISCHER 344 RATS FEMALE		CONTROL	100 PPM	200 PPM	400 PPM
<b>SPECIAL SENSES SYSTEM - CONT</b>					
Ciliary Body, Inflammation	1 [2.0]		1 [2.0]		
Cornea, Inflammation	1 [4.0]		3 [2.7]		
Lens, Cataract	(50)		(50)		
Harderian Gland					
Inflammation, Suppurative	1 [4.0]				
<b>URINARY SYSTEM</b>					
Kidney	(50)		(50)		
Cyst					(50)
Nephropathy, Chronic					
Bilateral, Cortex, Renal Tubule, Degeneration	19 [1.4]		21 [1.3]		
Cortex, Infarct					
Cortex, Renal Tubule, Accumulation, Hyaline					
Droplet					
Cortex, Renal Tubule, Hyperplasia					
Medulla, Renal Tubule, Degeneration	1 [3.0]		1 [1.0]		
Pelvis, Transitional Epithelium, Hyperplasia					
Pelvis, Transitional Epithelium, Hyperplasia	1 [2.0]				
Mineralization					
Renal Tubule, Dilatation					
Urinary Bladder					
Transitional Epithelium, Hyperplasia	1 [4.0]		(50)		

a Number of animals examined microscopically at site and number of animals with lesion  
b Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

NTP Experiment-Test: 88004-05  
 Study Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
 WITH AVERAGE SEVERITY GRADES [b]  
 DIVINYLBENZENE

Report: PEIRPRT18  
 Date: 01/31/04  
 Time: 15:01:15

FISCHER 344 RATS MALE		CONTROL	100 PPM	200 PPM	400 PPM
<b>DISPOSITION SUMMARY</b>					
Animals Initially In Study	50	50	50	50	50
Early Deaths					
Moribund Sacrifice	15	9	12	13	
Natural Death	4	6	6	5	
Survivors	31	35	31	32	
Terminal Sacrifice					
Natural Death					
Animals Examined Microscopically	50	50	50	50	50
<b>ALIMENTARY SYSTEM</b>					
Esophagus	(50)	(50)	(50)	(50)	(50)
Foreign Body					1
Intestine Small, Jejunum	(46)	(47)	(47)	(46)	
Necrosis	1	[3.0]			
Intestine Small, Ileum	(46)	(47)	(45)	(46)	
Dilatation					
Liver	(50)	(49)	(50)	(50)	(50)
Angiectasis					
Clear Cell Focus	2	[1.0]	5	[2.5]	1
Hemorrhage	1	[3.0]			[4.0]
Hepatodiphramatic Nodule	2	[4.0]	2	[4.0]	4
Inflammation, Granulomatous			1	[3.0]	[4.0]
Necrosis	1	[4.0]	1	[2.0]	3
Vacuolization	1	[3.0]	2	[2.0]	[2.3]
Bile Duct, Hyperplasia					
Hepatocyte, Regeneration					
Periportal, Inflammation, Chronic					
Serosa, Fibrosis					
Serosa, Hemorrhage					
Mesentery					
Necrosis	(12)	(13)	(18)		
Fat, Hemorrhage	7	[2.9]	13	[2.9]	[2.9]
Oral Mucosa					
Gingival, Cyst	(1)		(1)		
Gingival, Hyperplasia, Squamous					
Pancreas					
Thrombosis	1	[1.0]	(49)	(50)	
Acinus, Atrophy	(50)		1	[4.0]	
Acinus, Hyperplasia	15	[1.8]	18	[1.8]	27
					[1.7]
					1
					[3.0]

a Number of animals examined microscopically at site and number of animals with lesion

b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

NTP Experiment-Test: 88004-05  
 Study Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
 WITH AVERAGE SEVERITY GRADES (b)  
 DIVINYLBENZENE

Report: PEIRPT18  
 Date: 01/31/04  
 Time: 15:01:15

FISCHER 344 RATS MALE	CONTROL	100 PPM	200 PPM	400 PPM
ALIMENTARY SYSTEM - CONT				
Acinus, Inflammation	1 [1.0] (50)	2 [2.0] (48)	3 [3.0] (50)	(50)
Duct, Cyst	1 [3.0]	1 [3.0]		
Stomach, Forestomach				
Diverticulum				
Hyperplasia, Squamous				
Inflammation, Suppurative				
Ulcer				
Stomach, Glandular	1 [2.0] 4 [3.0] (50)	1 [1.0] 1 [4.0] (48)	1 [4.0] (50)	(49)
Erosion				
Ulcer				
Epithelium, Hyperplasia	1 [4.0] (1)	2 [4.0] (1)	1 [3.0] (1)	2 [2.5] 1 [2.0]
Tongue				
Epithelium, Hyperplasia				
CARDIOVASCULAR SYSTEM				
Blood Vessel	1 [3.0] (50)	1 [3.0] (50)	1 [3.0] (50)	(50)
Thrombosis				
Heart				
Cardiomyopathy				
Atrium, Thrombosis	7 [1.6] 2 [3.5]	5 [2.2] 1 [4.0]	1 [2.0] 2 [4.0]	1 [2.0] 1 [4.0]
Pericardium, Inflammation				
Pericardium, Pigmentation				
Pericardium, Epicardium, Infiltration				
Cellular, Histiocyte			1 [4.0]	1 [4.0]
ENDOCRINE SYSTEM				
Adrenal Cortex	1 [3.0] (50)	2 [2.5] 8 [1.8] (50)	7 [1.7] (50)	(50)
Hyperplasia				
Necrosis				
Vacuolization Cytoplasmic				
Adrenal Medulla				
Hyperplasia	12 [3.2] (50)	13 [2.7] (50)	8 [2.4] (50)	(50)
Bilateral, Hyperplasia				
Islets Pancreatic				
Hyperplasia	1 [1.0] (46)	1 [1.0] (48)	2 [2.0] (49)	(50)
Parathyroid Gland				
Hyperplasia	1 [2.0] (50)	1 [3.0] 1 [2.0] (50)	2 [3.0] 1 [4.0] (47)	(49)
Pituitary Gland				
Cyst				

a Number of animals examined microscopically at site and number of animals with lesion  
 b Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

NTP Experiment-Test: 88004-05  
 Study Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
 WITH AVERAGE SEVERITY GRADES(b)  
 DIVINYLBENZENE

Report: PEIRPT18  
 Date: 01/31/04  
 Time: 15:01:15

FISCHER 344 RATS MALE		CONTROL	100 PPM	200 PPM	400 PPM
<b>ENDOCRINE SYSTEM - CONT</b>					
Hemorrhage					
Pars Distalis, Hematocyst		1 [3.0]	1 [4.0]	9 [2.6]	8 [2.8]
Pars Distalis, Hyperplasia	(50)	5 [2.2]	8 [2.3]	(50)	(49)
Thyroid Gland		2 [2.5]	4 [3.0]	9 [2.6]	7 [2.4]
C-Cell, Hyperplasia				2 [2.0]	1 [1.0]
Follicular Cell, Hyperplasia				2 [2.5]	
<b>GENERAL BODY SYSTEM</b>					
None					
<b>GENITAL SYSTEM</b>					
Penis					(2)
Inflammation				1 [4.0]	
Preputial Gland				(50)	
Cyst	(48)	1 [3.0]	1 [4.0]	2 [4.0]	(49)
Hyperplasia		1 [4.0]	4 [3.8]	1 [4.0]	1 [4.0]
Prostate	(50)			(50)	(50)
Hyperplasia				1 [1.0]	
Inflammation, Suppurative				4 [3.5]	2 [1.5]
Seminal Vesicle	(50)	5 [2.0]	1 [2.0]	(50)	(50)
Dilatation				4 [3.5]	1 [4.0]
Hyperplasia					
Inflammation, Suppurative					
Testes					
Artery, Inflammation, Chronic Active					
Arterial Epithelium, Atrophy					
Germinal Epithelium, Atrophy					
Interstitial Cell, Hyperplasia					
<b>HEMATOPOIETIC SYSTEM</b>					
Lymph Node					
Deep Cervical, Angiectasis	(11)	(5)	(11)	(6)	
Deep Cervical, Cyst	1 [4.0]	1 [2.0]	1 [3.0]	1 [2.0]	
Deep Cervical, Hemorrhage					
Deep Cervical, Hyperplasia, Lymphoid	1 [3.0]		1 [3.0]		
Pancreatic, Ectasia					
Pancreatic, Hemorrhage					
Pancreatic, Infiltration Cellular, Histiocyte					

a Number of animals examined microscopically at site and number of animals with lesion

b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

NTP Experiment-Test: 88004-05  
Study Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
WITH AVERAGE SEVERITY GRADES [b]  
DIVINYLBENZENE

Report: PEIRPT18  
Date: 01/31/04  
Time: 15:01:15

FISCHER 344 RATS MALE

CONTROL 100 PPM 200 PPM 400 PPM

HEMATOPOIETIC SYSTEM - CONT

Lymph Node, Bronchial (7) (6) (12) (5)

Hemorrhage

Infiltration Cellular

Pigmentation

Lymph Node, Mesenteric

Aniectasis

Ectasia

Hyperplasia, Lymphoid

Infiltration Cellular, Histiocyte

Lymph Node, Mediastinal

Aniectasis

Hyperplasia, Lymphoid

Spleen

Accessory Spleen

Fibrosis

Hematopoietic Cell Proliferation

Hemorrhage

Hyperplasia, Focal, Lymphoid

Necrosis

Lymphocyte, Hyperplasia, Diffuse

Thymus

Hemorrhage

(49) (49) (50) (50)

1 [4.0] 1 [4.0]

1 [1.0] (23) (25) (25)

(19) (49) (50) (50)

3 (3.5) 6 [3.2] 4 [3.3] 1 [4.0]

2 [4.0] 1 [4.0] 1 [4.0] 1 [4.0]

3 [4.0] 1 [4.0] 1 [4.0] 1 [4.0]

1 [2.0] (44) (46) 1 [3.0] (42)

INTEGUMENTARY SYSTEM

Mammary Gland

Galactocele

Skin

Cyst Epithelial Inclusion

Hyperkeratosis

Inflammation, Acute

Inflammation, Granulomatous

Ulcer

Subcutaneous Tissue, Thrombosis

(35) (43) (47) (48)

3 [3.7] 2 [1.5] 6 [4.0] 3 [4.0]

(50) (50) (50) (50)

4 [4.0] 1 [4.0] 3 [4.0] 2 [4.0]

2 [3.5] 1 [3.0] 2 [3.5] 2 [4.0]

1 [4.0] 1 [4.0] 1 [4.0] 1 [4.0]

MUSCULOSKELETAL SYSTEM

Bone

Hyperostosis

Cartilage, Femur, Hyperplasia

(50) (50) (50) (50)

1 [3.0] 1 [1.0] 1 [3.0] (50)

a Number of animals examined microscopically at site and number of animals with lesion

b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

NTP Experiment-Test: 88004-05  
 Study Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
 WITH AVERAGE SEVERITY GRADES(b)

Report: PEIRPT18  
 Date: 01/31/04  
 Time: 15:01:15

		CONTROL	100 PPM	200 PPM	400 PPM
FISCHER 344 RATS MALE	MUSCULOSKELETAL SYSTEM - CONTP Femur, Fracture		1 [4.0]		
	NERVOUS SYSTEM				
Brain		(49) 10 [2.9]	(50) 5 [2.4]	(50) 8 [2.9]	(50) 6 [3.5]
Compression					1 [3.0]
Gliosis					1 [3.0]
Hemorrhage					
Lung	RESPIRATORY SYSTEM				
Congestion		(49) 1 [4.0]	(49) 2 [4.0]	(50) 3 [4.0]	(49) 2 [2.5]
Hemorrhage					1 [1.0]
Inflammation, Suppurative					1 [2.0]
Epiglottis, Metaplasia, Squamous		(50) 1 [2.0]	(50) 1 [4.0]	(50) 1 [3.0]	(50) 1 [2.0]
Lung					
Inflammation, Chronic, Diffuse		(50) 2 [3.0]	(50) 1 [2.0]	(50) 4 [1.8]	(50) 4 [1.5]
Inflammation, Chronic, Focal					1 [3.0]
Inflammation, Suppurative					1 [2.0]
Necrosis					
Thrombosis					
Alveolar Epithelium, Hyperplasia					
Alveolar Epithelium, Hypertrophy					
Alveolus, Hypertrophy					
Histiocyte					
Interstitium, Fibrosis					
Mediastinum, Abscess					
Mediastinum, Inflammation					
Mediastinum, Pigmentation					
Perivascular, Edema					
Perivascular, Infiltration Cellular,					
Bosinophil					
Nose					
Foreign Body		(50) 5 [2.0]	(48) 9 [3.0]	(50) 3 [1.7]	(49) 10 [1.6]
Inflammation, Suppurative					10 [1.6]
Glands, Dilatation					46 [1.5]
Goblet Cell, Hyperplasia					16 [1.6]

a Number of animals examined microscopically at site and number of animals with lesion

b Average severity grade (1-minimal; 2-mild; 3-moderate; 4-marked)

NTP Experiment-Test: 88004-05  
 Study Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
 WITH AVERAGE SEVERITY GRADES (b)  
 DIVINYLBENZENE

FISCHER 344 RATS MALE

	CONTROL	100 PPM	200 PPM	400 PPM
<b>RESPIRATORY SYSTEM - CONT</b>				
Nasolacrimal Duct, Inflammation, Suppurative	2 [1.0]	6 [1.7]	1 [1.0]	4 [2.3]
Nasopharyngeal Duct, Cyst				1 [4.0]
Nasopharyngeal Duct, Foreign Body				1 [1.0]
Nasopharyngeal Duct, Inflammation, Suppurative		1 [2.0]		
Nasopharyngeal Duct, Respiratory Epithelium, Hyperplasia				
Olfactory Epithelium, Degeneration	4 [1.3]	47 [1.6]	49 [1.7]	1 [4.0]
Olfactory Epithelium, Degeneration, Hyaline			2 [1.0]	49 [2.0]
Olfactory Epithelium, Hyperplasia, Basal Cell		21 [1.0]	44 [1.4]	1 [2.0]
Olfactory Epithelium, Metaplasia		1 [1.0]		48 [1.7]
Respiratory Epithelium, Hyperplasia Turbinare, Cyst	1 [3.0]			2 [1.5]
Pleura Mesothelium, Hyperplasia	(50)	1 [2.0]		
Trachea Glands, Degeneration, Cystic	(50) 1 [2.0]	(49)	1 [2.0] (50)	(50) 5 [1.6]

SPECIAL SENSES SYSTEM

Eye	(50)	(48)	(48)	(49)
Anterior Chamber, Hemorrhage			1 [4.0]	
Cornea, Mineralization	2 [2.0]	1 [4.0]	3 [3.0]	1 [1.0]
Lens, Cataract		1 [4.0]		1 [2.0]
Retina, Atrophy	(50)	(50)	(50)	
Harderian Gland Atrophy			1 [4.0]	
Zymbal's Gland Inflammation, Suppurative	(1)		(3)	

URINARY SYSTEM

Kidney	(50)	(49)	(50)	(49)
Cyst		1 [4.0]		1 [4.0]
Nephropathy, Chronic	37 [1.8]	41 [1.5]	41 [2.1]	45 [1.8]
Cortex, Infarct	1 [4.0]	1 [2.0]		
Cortex, Renal Tubule, Degeneration				
Cortex, Renal Tubule, Hyperplasia	1 [2.0]	2 [1.0]		1 [2.0]
Cortex, Renal Tubule, Hypertrophy				2 [4.0]
Medulla, Infarct	1 [1.0]			
Medulla, Infiltration Cellular, Lipocyte			1 [4.0]	
			1 [3.0]	

a Number of animals examined microscopically at site and number of animals with lesion  
 b Average severity grade (1-minimal; 2-mild; 3-moderate; 4-severe)

NTP Experiment-Test: 88004-05      INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
Study Type: CHRONIC      WITH AVERAGE SEVERITY GRADES (b)  
Route: RESPIRATORY EXPOSURE WHOLE BODY      DIVINYLBENZENE

Report: BEIRPT18  
Date: 01/31/04  
Time: 15:01:15

FISCHER 344 RATS MALE		CONTROL	100 PPM	200 PPM	400 PPM
URINARY SYSTEM - CONT					
Papilla, Renal Tubule, Dilatation					1 [4.0]
Pelvis, Transitional Epithelium, Hyperplasia	1	[4.0]	1	[2.0]	
Pelvis, Transitional Epithelium,					
Mineralization					1 [3.0]
Urethra					
Transitional Epithelium, Hyperplasia	(50)	(49)	(1)	[3.0]	
Urinary Bladder	4	[2.0]	1	[2.5]	
Calculus Micro Observation Only	2	[3.0]	1	[4.0]	
Hemorrhage					
Transitional Epithelium, Hyperplasia					1 [2.0]

a Number of animals examined microscopically at site and number of animals with lesion

b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

END OF REPORT

NTP Experiment-Test: 88004-06      INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
Study Type: CHRONIC      DIVINYLBENZENE  
Route: RESPIRATORY EXPOSURE WHOLE BODY

Report: PEIRPT03  
Date: 01/31/04  
Time: 15:23:17

Facility: Battelle Northwest  
Chemical CAS #: 1321-74-0  
Lock Date: 06/17/02  
Cage Range: All  
Reasons For Removal: All  
Removal Date Range: All  
Treatment Groups: Include All

a Number of animals examined microscopically at site and number of animals with lesion

Page 1

NTP Experiment-Test: 88004-06      INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a.)

Study Type: CHRONIC      DIVINYLBENZENE  
Route: RESPIRATORY EXPOSURE WHOLE BODY

Report: PERP03  
Date: 01/31/04  
Time: 15:23:17

B6C3F1 MICE FEMALE

CONTROL    10 PPM    30 PPM    100 PPM

DISPOSITION SUMMARY

Animals Initially In Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	11	12	8	7
Natural Death	6	3	3	1
Accidently Killed				
Survivors				
Terminal Sacrifice	33	35	38	42
<b>Animals Examined Microscopically</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>

ALIMENTARY SYSTEM

Esophagus				
Infiltration Cellular, Mixed Cell	(50)	(50)	(50)	(50)
Gallbladder	(45)	(41)	(36)	(41)
Hemorrhage, Chronic	1 (2%)			
Intestine Large, Chronic				
Artery, Inflammation, Acute			1 (3%)	1 (2%)
Intestine Large, Rectum				
Artery, Inflammation, Chronic Active		(46)	(48)	(50)
Liver		1 (2%)	(50)	(50)
Angiectasis		(49)		
Basophilic Focus	4 (8%)	2 (4%)	3 (6%)	2 (4%)
Clear Cell Focus	4 (8%)	2 (4%)	3 (6%)	4 (8%)
Bosinophilic Focus	8 (16%)	8 (16%)	3 (6%)	4 (8%)
Fatty Change	12 (24%)	1 (2%)	1 (2%)	
Hematopoietic Cell Proliferation		1 (2%)	1 (2%)	1 (2%)
Infarct			1 (2%)	
Inflammation, Acute			1 (2%)	1 (2%)
Inflammation, Chronic			1 (2%)	1 (2%)
Inflammation, Granulomatous		1 (2%)		
Mixed Cell Focus				
Necrosis				
Tension Lipidosis	1 (2%)	3 (6%)	1 (2%)	1 (2%)
Vacuolization Cytoplasmic, Focal	1 (2%)	2 (4%)	4 (8%)	
Centrilobular, Hypertrophy		1 (4%)	1 (2%)	
Mesentery				
Artery, Inflammation, Chronic Active	(17)	(16)	(4)	(5)
Fat, Congestion	1 (6%)			
Fat, Hemorrhage	17 (100%)	15 (94%)	3 (75%)	5 (100%)
Fat, Necrosis				

a Number of animals examined microscopically at site and number of animals with lesion

NTP Experiment-Test: 88004-06  
 Study Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)

DIVINYLBENZENE

Report: PEIRPT03  
 Date: 01/31/04  
 Time: 15:23:17

B6C3F1 MICE FEMALE

	CONTROL	10 PPM	30 PPM	100 PPM
<b>ALIMENTARY SYSTEM - CONT</b>				
Pancreas	(48)	(50)	(50)	(50)
Atrophy		2 (4%)	1 (2%)	(50)
Basophilic Focus			1 (2%)	
Duct, Cyst			2 (4%)	
Stomach, Forestomach	(50)	(50)	(50)	(50)
Hyperplasia, Squamous	3 (6%)	5 (10%)		
Inflammation, Chronic Active	1 (2%)			
Ulcer		1 (2%)	1 (2%)	
Stomach, Glandular	(49)	(50)	(49)	(49)
Hemorrhage		1 (2%)		
Necrosis		1 (2%)		
Tooth	(9)	(13)	(8)	(15)
Incisor, Dysplasia	9 (100%)	13 (100%)	8 (100%)	15 (100%)
<b>CARDIOVASCULAR SYSTEM</b>				
Blood Vessel	(1)			
Aorta, Mineralization	1 (100%)			
Heart	(50)	(50)	(50)	(50)
Cardiomyopathy	3 (6%)	6 (12%)	1 (2%)	1 (2%)
Infiltration, Cellular, Polymorphonuclear				
Inflammation, Suppurative				
Mineralization	1 (2%)	1 (2%)	1 (2%)	1 (2%)
Necrosis				
Thrombosis				
Artery, Inflammation, Chronic Active	2 (4%)	1 (2%)		
<b>ENDOCRINE SYSTEM</b>				
Adrenal Cortex	(50)	(50)	(50)	(50)
Hematopoietic Cell Proliferation	1 (2%)	1 (2%)	5 (10%)	4 (8%)
Hyperplasia		2 (4%)	2 (4%)	8 (16%)
Adrenal Medulla	(49)	(50)	(49)	(50)
Hyperplasia	1 (2%)	1 (2%)		2 (4%)
Necrosis	1 (2%)			
Islets, Pancreatic	(48)	(49)	(49)	(50)
Hyperplasia			1 (2%)	
Pituitary Gland	(47)	(50)	(49)	(45)
Cyst				1 (2%)
Pars Distalis, Angiectasis		3 (6%)		

a Number of animals examined microscopically at site and number of animals with lesion

NTP Experiment-Test: 88004-06  
Study Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
DIVINYLBENZENE

Report: PEIRPT03  
Date: 01/31/04  
Time: 15:23:17

	CONTROL	10 PPM	30 PPM	100 PPM
B6C3F1 MICE FEMALE				
GENERAL BODY SYSTEM				
None				
GENITAL SYSTEM				
Ovary	(48)	(50)	(49)	(49)
Angiectasis	2 (4%)	3 (6%)		
Cyst	9 (19%)	14 (28%)	10 (20%)	9 (18%)
Inflammation, Acute			1 (2%)	
Mineralization	1 (2%)		1 (2%)	
Necrosis				
Thrombosis				
Uterus	(49)	(50)	(50)	(49)
Angiectasis		1 (2%)	2 (4%)	1 (2%)
Endometrium, Hyperplasia, Cystic	2 (4%)	8 (16%)	5 (10%)	8 (16%)
HEMATOPOIETIC SYSTEM				
Lymph Node	(9)	(3)	(5)	(2)
Ectasia	1 (11%)			
Deep Cervical, Hyperplasia, Lymphoid				
Deep Cervical, Infiltration, Cellular, Plasma	1 (11%)			
Cell				
Iliac, Angiectasis				
Iliac, Ectasia	1 (11%)			
Lumbar, Angiectasis				
Renal, Angiectasis				
Lymph Node, Mesenteric				
Angiectasis				
Ectasia				
Inflammation, Granulomatous				
Spleen	(49)	1 (2%)	(49)	(49)
Hematopoietic Cell Proliferation	3 (6%)	(50) (6%)	3 (6%)	1 (2%)
Inflammation, Acute	1			

a. Number of animals examined microscopically at site and number of animals with lesion

NTP Experiment-Test: 88004-06  
 Study Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
 Report: PEIRPT03  
 Date: 01/31/04  
 Time: 15:23:17

DIVINYLBENZENE

B6C3F1 MICE FEMALE		CONTROL	10 PPM	30 PPM	100 PPM
<b>HEMATOPOIETIC SYSTEM - CONT</b>					
Necrosis					
Sinusoid, Dilatation			1 (2%)		1 (2%)
<b>INTEGUMENTARY SYSTEM</b>					
Skin					
Inflammation, Chronic Active		(50) 3 (6%)	(50) 2 (4%)	(50)	(50) 1 (2%)
<b>MUSCULOSKELETAL SYSTEM</b>					
None					
<b>NERVOUS SYSTEM</b>					
Brain					
Degeneration, Focal		(50)	(50)		
Hemorrhage				1 (2%)	
Meninges, Infiltration Cellular, Mononuclear Cell			1 (2%)	1 (2%)	
<b>RESPIRATORY SYSTEM</b>					
Larynx					
Hyperplasia, Squamous		(48)	(50)		
Inflammation, Suppurative				1 (2%)	
Lung					
Hemorrhage		(50)	(50)		
Infiltration Cellular, Polymorphonuclear			1 (2%)		
Inflammation, Acute					
Thrombosis					
Alveolar Epithelium, Hyperplasia		4 (8%)	3 (6%)		
Alveolus, Granuloma				4 (8%)	
Alveolus, Infiltration Cellular, Histiocyte		3 (6%)	6 (12%)		
Bronchiole, Hyperplasia				1 (2%)	
Bronchiole, Hyperplasia, Atypical				1 (2%)	
Nose					
Inflammation, Suppurative		(50)	39 (78%)	45 (90%)	8 (16%)
Glands, Respiratory Epithelium, Metaplasia		1 (2%)	(50)	(50)	
Olfactory Epithelium, Atrophy		3 (6%)	50 (100%)	49 (98%)	17 (35%)
		8 (16%)	50 (100%)	50 (100%)	1 (2%)
					48 (98%)
					49 (100%)
					49 (100%)

a Number of animals examined microscopically at site and number of animals with lesion

NTP Experiment-Test: 88004-06  
Study Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
DIVINYLBENZENE

Report: PEIRPT03  
Date: 01/31/04  
Time: 15:23:17

		CONTROL	10 PPM	30 PPM	100 PPM
<b>RESPIRATORY SYSTEM - CONT</b>					
	Olfactory Epithelium, Degeneration, Hyaline	2 (4%)	50 (100%)	40 (80%)	8 (16%)
	Olfactory Epithelium, Respiratory Epithelium,		50 (100%)	50 (100%)	
	Metaplasia	(49)	(50)	(50)	(50)
Trachea	Inflammation, Suppurative		1 (2%)		
<b>SPECIAL SENSES SYSTEM</b>					
Eye					
Cataract		(50)	(50)	(50)	(49)
Inflammation		1 (2%)	2 (4%)	1 (2%)	1 (2%)
Phthisis Bulbi		1 (2%)	1 (2%)	1 (2%)	1 (2%)
Cornea, Hyperplasia, Squamous					
Cornea, Inflammation, Chronic Active		1 (2%)	3 (6%)	3 (6%)	1 (2%)
Cornea, Mineralization					6 (12%)
Harderian Gland		(50)	(50)	(50)	(50)
Hyperplasia		1 (2%)	4 (8%)	2 (4%)	3 (6%)
Inflammation, Chronic Active		1 (2%)			
<b>URINARY SYSTEM</b>					
Kidney					
Amyloid Deposition		(49)	(50)	(50)	(50)
Infarct			1 (2%)	1 (2%)	1 (2%)
Inflammation, Suppurative			2 (4%)	2 (4%)	2 (4%)
Metaplasia, Osseous		2 (4%)	3 (6%)	3 (6%)	1 (2%)
Mineralization		1 (2%)	25 (51%)	31 (62%)	22 (44%)
Nephropathy					17 (34%)
Artery, Inflammation, Chronic Active		(49)	(50)	(50)	1 (2%)
Urinary Bladder					(49)
Inflammation, Suppurative					1 (2%)
Artery, Inflammation, Chronic Active		1 (2%)			

a Number of animals examined microscopically at site and number of animals with lesion

NTP Experiment-Test: 88004-06  
 Study Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
 DIVINYLBENZENE

Report: BBIRPT03  
 Date: 01/31/04  
 Time: 15:23:17

B6C3F1 MICE MALE	CONTROL	10 PPM	30 PPM	100 PPM
<b>DISPOSITION SUMMARY</b>				
Animals Initially In Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	7	6	5	4
Natural Death	2	6	3	3
Survivors				
Terminal Sacrifice	41	38	42	43
Animals Examined Microscopically	50	50	50	50
<b>ALIMENTARY SYSTEM</b>				
Liver	(50)	(50)	(50)	(50)
Angiectasis				
Basophilic Focus	3 (6%)	6 (12%)	7 (14%)	1 (2%)
Clear Cell Focus	9 (18%)	11 (22%)	6 (12%)	4 (8%)
Eosinophilic Focus	8 (16%)	7 (14%)	5 (10%)	5 (10%)
Fatty Change				
Infarct	2 (4%)	2 (4%)	1 (2%)	2 (4%)
Inflammation, Granulomatous	1 (2%)			
Mineralization	1 (2%)			
Mixed Cell Focus	2 (4%)	1 (2%)	2 (4%)	1 (2%)
Necrosis	1 (2%)	2 (4%)	2 (4%)	2 (4%)
Tension Lipidosis	2 (4%)	1 (2%)	2 (4%)	1 (2%)
Vacuolarization Cytoplasmic, Focal	2 (4%)			
Mesentery				
Fat, Necrosis	(11)	(4)	(4)	(5)
Pancreas				
Duct, Cyst	10 (91%)	4 (100%)	4 (100%)	5 (100%)
Stomach, Forestomach				
Hyperplasia, Squamous	(49)	(50)	(49)	(50)
Inflammation	1 (2%)	4 (8%)	2 (4%)	4 (8%)
Inflammation, Acute				
Inflammation, Chronic Active				
Mineralization				
Ulcer				
Stomach, Glandular	2 (4%)	1 (2%)	1 (2%)	1 (2%)
Inflammation, Acute				
Mineralization				
Necrosis				
Tooth				
Incisor, Dysplasia	(41)	(43)	(41)	(35)
	41 (100%)	43 (100%)	41 (100%)	35 (100%)

a Number of animals examined microscopically at site and number of animals with lesion

NTP Experiment-Test: 88004-06      INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
 Study Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY

Report: PEIRPT03  
 Date: 01/31/04  
 Time: 15:23:17

	B6C3F1 MICE MALE	CONTROL	10 PPM	30 PPM	100 PPM
<b>CARDIOVASCULAR SYSTEM</b>					
Heart					
Cardiomyopathy	(50)	(49)	(50)	(50)	(50)
Mineralization	14 (28%)	5 (10%)	5 (10%)	5 (10%)	5 (10%)
Artery, Inflammation, Chronic Active	1 (2%)	1 (2%)	1 (2%)	1 (2%)	1 (2%)
<b>ENDOCRINE SYSTEM</b>					
Adrenal Cortex					
Hyperplasia	9 (18%)	10 (20%)	6 (12%)	5 (10%)	5 (10%)
Hypertrophy	24 (49%)	25 (51%)	26 (52%)	24 (48%)	24 (48%)
Adrenal Medulla	(49)	(49)	(50)	(50)	(50)
Hyperplasia	1 (2%)	2 (4%)	2 (4%)	2 (4%)	2 (4%)
Parathyroid Gland	(35)	(39)	(36)	(35)	(35)
Hyperplasia	(48)	(47)	1 (3%)	1 (3%)	1 (3%)
Pituitary Gland	(48)	(47)	(47)	(47)	(46)
Cyst	2 (4%)	1 (2%)	2 (4%)	2 (4%)	2 (4%)
Pars Distalis, Hyperplasia	(49)	(49)	(50)	(50)	(50)
Thyroid Gland	2 (4%)	1 (2%)	1 (2%)	1 (2%)	1 (2%)
Follicular Cell, Hyperplasia					
<b>GENERAL BODY SYSTEM</b>					
None					
<b>GENITAL SYSTEM</b>					
Epididymis					
Granuloma Sperm	(50)	(50)	(50)	(50)	(50)
Penis	1 (2%)	2 (4%)	(1)	(1)	(1)
Inflammation, Acute					
Preputial Gland	(50)	(50)	(50)	(50)	(50)
Ectasia	1 (2%)	3 (6%)	2 (4%)	2 (4%)	1 (2%)
Inflammation, Chronic Active					
Seminal Vesicle	(49)	(48)	(50)	(50)	(49)
Inflammation, Chronic	(50)	1 (2%)	(50)	(50)	(50)
Testes	2 (4%)				
Atrophy					
Mineralization	1 (2%)				

a Number of animals examined microscopically at site and number of animals with lesion

NTP Experiment-Test: 88004-06      INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
Study Type: CHRONIC      DIVINYLBENZENE  
Route: RESPIRATORY EXPOSURE WHOLE BODY

Report: PEIRPT03  
Date: 01/31/04  
Time: 15:23:17

B6C3F1 MICE MALE		CONTROL	10 PPM	30 PPM	100 PPM
<b>GENITAL SYSTEM - CONT</b>					
	Interstitial Cell, Hyperplasia			1 (2%)	
<b>HEMATOPOIETIC SYSTEM</b>					
Bone Marrow	(50)	(48)	(50)	(50)	(50)
Necrosis	1 (2%)				
Spleen	(49)	(48)	(50)	(50)	(50)
Hematopoietic Cell Proliferation	1 (2%)		1 (2%)		
<b>INTEGUMENTARY SYSTEM</b>					
Skin	(50)	(50)	(50)	(50)	(50)
Cyst Epithelial Inclusion	1 (2%)				
Inflammation, Chronic Active	3 (6%)	1 (2%)			2 (4%)
Inflammation, Granulomatous					1 (2%)
Subcutaneous Tissue, Cyst Epithelial				1 (2%)	
Inclusion					
<b>MUSCULOSKELETAL SYSTEM</b>					
None					
<b>NERVOUS SYSTEM</b>					
Brain	(50)	(50)	(50)	(50)	(50)
Necrosis, Focal	1 (2%)				
Artery, Inflammation, Chronic Active	1 (2%)				
<b>RESPIRATORY SYSTEM</b>					
Larynx	(50)	(50)	(50)	(50)	(50)
Inflammation, Suppurative	1 (2%)				
Lung	(49)	(49)	(49)	(49)	(49)
Hemorrhage	1 (2%)				1 (2%)
Mineralization					
Alveolar Epithelium, Hyperplasia	1 (2%)	1 (2%)	5 (10%)	5 (10%)	7 (14%)
Alveolus, Infiltration Cellular, Histiocyte	2 (4%)	4 (8%)	5 (10%)	5 (10%)	1 (2%)
Bronchiole, Hyperplasia					

a Number of animals examined microscopically at site and number of animals with lesion

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)

NIP Experiment-Test: 80004-00  
Study Type: CHRONIC  
INCIDENCE RATE (% NUMBER DIVINYL BENZENE)

Report: PEIRPT03  
Date: 01/31/04  
Time: 15:23:17

	CONTROL	10 PPM	30 PPM	100 PPM
<b>RESPIRATORY SYSTEM - CONT</b>				
Bronchiole, Hyperplasia, Atypical		38 (78%)	46 (94%)	46 (94%)
Bronchiole, Inflammation, Chronic Active		(50)	(50)	1 (2%)
Nose		3 (6%)	47 (94%)	(50)
Inflammation, Suppurative			49 (100%)	49 (98%)
Glands, Necrosis			1 (2%)	
Glands, Respiratory Epithelium, Metaplasia		12 (24%)	50 (100%)	49 (100%)
Olfactory Epithelium, Atrophy		14 (28%)		50 (100%)
Olfactory Epithelium, Degeneration, Hyaline		5 (10%)	50 (100%)	48 (98%)
Olfactory Epithelium, Respiratory Epithelium,				11 (22%)
Metaplasia				
Respiratory Epithelium, Metaplasia, squamous		1 (2%)	50 (100%)	49 (100%)
Sinus, Foreign Body			1 (2%)	1 (2%)
<b>SPECIAL SENSES SYSTEM</b>				
<b>Eye</b>				
Phtisis Bulbi		(49)	(47)	(50)
Cornea, Inflammation, Chronic Active			1 (2%)	1 (2%)
Cornea, Mineralization			2 (4%)	1 (2%)
Harderian Gland		(50)		2 (4%)
Hyperplasia		2 (4%)	(49)	(50)
			3 (6%)	2 (4%)
<b>URINARY SYSTEM</b>				
Kidney				
Cyst		(50)	(50)	(50)
Infarct		1 (2%)	2 (4%)	1 (2%)
Inflammation, Suppurative		1 (2%)		
Metaplasia, Osseous		1 (2%)		
Nephropathy		7 (14%)	3 (6%)	5 (10%)
Capsule, Fibrosis		45 (90%)	43 (86%)	40 (80%)
Papilla, Necrosis		1 (2%)		1 (2%)
Pelvis, Dilatation		1 (2%)		
Renal Tubule, Hyperplasia		2 (4%)	1 (2%)	1 (2%)
Renal Tubule, Necrosis				
Urinary Bladder		1 (2%)	(48)	(49)
Transitional Epithelium, Hyperplasia				

a Number of animals examined microscopically at site and number of animals with lesion

END OF REPORT

NTP Experiment-Test: 88004-06 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)  
Study Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY

Report: PEIRPT05  
Date: 01/31/04  
Time: 15:15:46

Facility: Battelle Northwest  
Chemical CAS #: 1321-74-0  
Lock Date: 06/17/02  
Cage Range: All  
Reasons For Removal: All  
Removal Date Range: All  
Treatment Groups: Include All

a Number of animals examined microscopically at site and number of animals with lesion

NTP Experiment-Test: 88004-06 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Study Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Report: PEIRPT05  
Date: 01/31/04  
Time: 15:15:46

	B6C3F1 MICE FEMALE	CONTROL	10 PPM	30 PPM	100 PPM
DISPOSITION SUMMARY					
Animals Initially in Study		50	50	50	50
Early Deaths		11	12	8	7
Moribund Sacrifice		6	3	3	1
Natural Death					
Accidently Killed					
Survivors		33	35	38	42
Terminal Sacrifice					
Animals Examined Microscopically		50	50	50	50
ALIMENTARY SYSTEM					
Gallbladder		(45)	(41)	(36)	(41)
Intestine Large, Colon		(48)	(50)	(50)	(50)
Intestine Large, Cecum		(47)	(48)	(48)	(50)
Intestine Small, Duodenum		(46)	(48)	1 (2%)	(49)
Carcinoma					
Histiocytic Sarcoma		1 (2%)	(46)	(48)	(49)
Intestine Small, Jejunum			2 (4%)	(48)	(49)
Carcinoma					
Liver		(49)	(48)	(48)	(50)
Hepatoceillular Carcinoma		3 (6%)	(50)	(50)	(50)
Hepatocellular Carcinoma, Multiple		2 (4%)	(8%)	3 (6%)	2 (4%)
Hepatoceillular Adenoma		12 (24%)	4 (8%)	5 (10%)	4 (8%)
Hepatocellular Adenoma, Multiple		5 (10%)	3 (6%)	1 (2%)	1 (2%)
Hepatocholangiocarcinoma		1 (2%)	1 (2%)		
Histiocytic Sarcoma			(17)	(16)	(4)
Mesentery					(5)
Pancreas			(48)	(50)	(50)
Histiocytic Sarcoma			1 (2%)		
Salivary Glands			(50)	(50)	(50)
Stomach, Forestomach			(50)	(50)	(50)
Stomach, Glandular			(49)	(49)	(49)
Adenoma			1 (2%)		

NTP Experiment-Test: 88004-06 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)  
 Study Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY

Report: PEIRPT05  
 Date: 01/31/04  
 Time: 15:15:46  
 DIVINYLBENZENE

B6C3F1 MICE FEMALE		CONTROL	10 PPM	30 PPM	100 PPM
<b>CARDIOVASCULAR SYSTEM</b>					
Heart					
Carcinoma, Metastatic, Mammary Gland	(50)	(50)	(50)	(50)	(50) 1 (2%)
Sarcoma		1 (2%)			
<b>ENDOCRINE SYSTEM</b>					
Adrenal Cortex	(50)	(50)	(50)	(50)	(50)
Hepatocellular Carcinoma, Metastatic, Liver	1 (2%)	1 (2%)			
Histiocytic Sarcoma	(49)	(50)	(49)	(50)	
Adrenal Medulla	1 (2%)				
Histiocytic Sarcoma					
Pheochromocytoma Malignant					2 (4%)
Pheochromocytoma Benign					
Islets, Pancreatic	(48)	(49)	(49)	(49)	(50)
Carcinoma	1 (2%)				
Pituitary Gland	(47)	(50)	(49)	(49)	(45)
Histiocytic Sarcoma					
Pars Distalis, Adenoma	1 (2%)				
Pars Intermedia, Adenoma	8 (17%)	8 (16%)	1 (2%)	1 (2%)	
Thyroid Gland	1 (2%)	(49)	(50)	(48)	
<b>GENERAL BODY SYSTEM</b>					
None					
<b>GENITAL SYSTEM</b>					
Ovary	(48)	(50)	(49)	(49)	(49)
Cystadenoma	3 (6%)				
Hemangioma					1 (2%)
Histiocytic Sarcoma					1 (2%)
Luteoma	1 (2%)				
Uterus	1 (2%)				
Adenoma	(49)	(50)	(50)	(50)	(49)
Carcinoma					1 (2%)
Fibroma					1 (2%)
Histiocytic Sarcoma					
Polyp Stromal	1 (2%)	3 (6%)	2 (4%)	2 (4%)	

NTP Experiment-Test: 88004-06 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Study Type: CHRONIC DIVINYLBENZENE

Route: RESPIRATORY EXPOSURE WHOLE BODY

Report: PERPRT05  
Date: 01/31/04  
Time: 15:15:46

	B6C3F1 MICE FEMALE	CONTROL	10 PPM	30 PPM	100 PPM
<b>HEMATOPOIETIC SYSTEM</b>					
Bone Marrow		(49)	(49)	(50)	(50)
Hemangiosarcoma		1 (2%)	2 (4%)		
Histiocytic Sarcoma					
Sarcoma, Metastatic, Skin					
Lymph Node		(9)	(3)	1 (2%)	(2)
Renal, Carcinoma, Metastatic, Mammary Gland			(5)		1 (50%)
Lymph Node, Bronchial		(43)	(46)	(39)	(39)
Lymph Node, Mandibular		(41)	(45)	(44)	(41)
Histiocytic Sarcoma		1 (2%)			
Lymph Node, Mesenteric		(49)	(50)	(49)	(49)
Carcinoma, Metastatic, Mammary Gland					1 (2%)
Histiocytic Sarcoma					
Lymph Node, Mediastinal		1 (2%)	(44)	(38)	(38)
Alveolar/Bronchiolar Carcinoma, Metastatic,		(44)			
Lung					
Carcinoma, Metastatic, Mammary Gland					1 (3%)
Hepatocarcinoma, Metastatic, Liver					1 (3%)
Histiocytic Sarcoma		1 (2%)	(49)	(49)	(49)
Spleen		(49)	(50)	(49)	
Hemangiosarcoma		3 (6%)			
Histiocytic Sarcoma					
Thymus		1 (2%)	(47)	(46)	(44)
Carcinoma, Metastatic, Mammary Gland		(49)			1 (2%)
Histiocytic Sarcoma		1 (2%)			
<b>INTEGUMENTARY SYSTEM</b>					
Mammary Gland		(50)	(49)	(50)	(49)
Carcinoma			2 (4%)		1 (2%)
Carcinoma, Multiple					(50)
Skin		(50)	(50)	(50)	
Squamous Cell Papilloma		1 (2%)			
Subcutaneous Tissue, Hemangiosarcoma		1 (2%)	1 (2%)		
Subcutaneous Tissue, Neural Crest Tumor		1 (2%)			
Subcutaneous Tissue, Sarcoma		1 (2%)	1 (2%)	2 (4%)	1 (2%)
Subcutaneous Tissue, Sarcoma, Multiple		1 (2%)		1 (2%)	

NTP Experiment-Test: 88004-06 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)  
 Study Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY

Report: PEIRPT05  
 Date: 01/31/04  
 Time: 15:15:46

B6C3F1 MICE FEMALE		CONTROL	10 PPM	30 PPM	100 PPM
<b>MUSCULOSKELETAL SYSTEM</b>					
Bone		(50)	(50) 1 (28)	(50)	(50)
Osteoma					
Osteosarcoma					
Skeletal Muscle				1 (2%)	
Carcinoma, Metastatic, Mammary Gland			(1)		1 (100%)
<b>NERVOUS SYSTEM</b>					
Brain		(50)	(50)	(50) 1 (28)	(50)
Meningioma Benign					
<b>RESPIRATORY SYSTEM</b>					
Larynx		(48)	(50)	(50)	(49)
Lung		(50)	(50) 4 (8%)	(50) 9 (18%)	(49) 4 (8%)
Alveolar/Bronchiolar Adenoma					
Alveolar/Bronchiolar Adenoma, Multiple					
Alveolar/Bronchiolar Carcinoma					
Alveolar/Bronchiolar Carcinoma, Multiple					
Carcinoma, Metastatic, Mammary Gland		2 (4%)	3 (6%)	4 (8%)	5 (10%)
Hemangiosarcoma, Metastatic, Spleen			2 (4%)		1 (2%)
Hepatochelular Carcinoma, Metastatic, Liver			1 (2%)		
Hepatocholangiocarcinoma, Metastatic, Liver		3 (6%)	2 (4%)		
Histiocytic Sarcoma			1 (2%)		
Sarcoma, Metastatic, Skin			1 (2%)		
Nose		(50)	2 (4%)	1 (2%)	(49)
Hemangioma			1 (2%)		
Histiocytic Sarcoma			1 (2%)		
Olfactory Epithelium, Neuroblastoma					
Trachea		(49)	(50)	(50)	1 (2%)
<b>SPECIAL SENSES SYSTEM</b>					
Eye		(50)	(50)	(50)	(49)
Harderian Gland		(50)	(50)	(50)	(50)
Adenoma		4 (8%)	1 (2%)	4 (8%)	5 (10%)
Carcinoma		2 (4%)	4 (8%)	1 (2%)	2 (4%)

NTP Experiment-Test: 88004-06 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)  
 Study Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY

Report: PEIRRPT05  
 Date: 01/31/04  
 Time: 15:15:46

B6C3F1 MICE FEMALE	CONTROL	10 PPM	30 PPM	100 PPM
<b>URINARY SYSTEM</b>				
Kidney	(49)	(50)	(50)	(50)
Carcinoma, Metastatic, Mammary Gland				1 (2%)
Hepatocellular Carcinoma, Metastatic, Liver		1 (2%)		1 (2%)
Histiocytic Sarcoma				1 (2%)
Renal Tubule, Adenoma	(49)	(50)	(50)	(49)
<b>SYSTEMIC LESIONS</b>				
Multiple Organs	* (50)	* (50)	* (50)	* (50)
Histiocytic Sarcoma	1 (2%)	2 (4%)	2 (4%)	1 (2%)
Lymphoma Malignant	11 (22%)	10 (20%)	5 (10%)	1 (2%)

\* Number of animals with any tissue examined microscopically

NTP Experiment-Test: 88004-06 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)  
Study Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY

Report: PEIRPT05  
Date: 01/31/04  
Time: 15:15:46

B6C3F1 MICE FEMALE	CONTROL	10 PPM	30 PPM	100 PPM
TUMOR SUMMARY				
Total Animals with Primary Neoplasms (b)	40	40	26	26
Total Primary Neoplasms	68	66	37	41
Total Animals with Benign Neoplasms	28	21	14	19
Total Benign Neoplasms	42	30	17	25
Total Animals with Malignant Neoplasms	22	29	19	13
Total Malignant Neoplasms	25	36	20	16
Total Animals with Metastatic Neoplasms	4	5	2	2
Total Metastatic Neoplasm	4	6	2	12
Total Animals with Malignant Neoplasms Uncertain Primary Site				
Total Animals with Neoplasms Uncertain- Benign or Malignant	1			
Total Uncertain Neoplasms	1			

a Number of animals examined microscopically at site and number of animals with lesion

b Primary tumors: all tumors except metastatic tumors

NTP Experiment-Test: 88004-06 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)  
 Study Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY

Report: PEIRPT05  
 Date: 01/31/04  
 Time: 15:15:46

	CONTROL	10 PPM	30 PPM	100 PPM
<b>DISPOSITION SUMMARY</b>				
Animals Initially in Study	50	50	50	50
Early Deaths	7	6	5	4
Moribund Sacrifice	2	6	3	3
Natural Death				
Survivors	41	38	42	43
Terminal Sacrifice				
Animals Examined Microscopically	50	50	50	50
<b>ALIMENTARY SYSTEM</b>				
Gallbladder	(42)	(34)	(42)	(45)
Adenoma	1 (2%)			
Intestine Large, Rectum	(48)	(45)	(46)	(47)
Leiomyosarcoma		1 (2%)		
Intestine Large, Cecum	(48)	(46)	(47)	(48)
Carcinoma		1 (2%)		
Leiomyoma		1 (2%)		
Hepatocholangiocarcinoma, Metastatic, Liver				
Polyp Adenomatous				
Intestine Small, Duodenum				
Carcinoma				
Intestine Small, Jejunum				
Carcinoma				
Intestine Small, Ileum				
Carcinoma				
Liver				
Carcinoma, Metastatic, Pancreas				
Cholangiocarcinoma				
Hemangiosarcoma				
Hepatoblastoma				
Hepatocellular Carcinoma				
Hepatocellular Carcinoma, Multiple				
Hepatocellular Adenoma				
Hepatocellular Adenoma, Multiple				
Hepatocholangiocarcinoma				
Histiocytic Sarcoma				
Oral Mucosa	(1)			
Pharyngeal, Squamous Cell Carcinoma	1 (100%)	(48)	(50)	(50)
Pancreas	(49)			

NTP Experiment-Test: 88004-06 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)  
 Study Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY

Report: PEIRPT05  
 Date: 01/31/04  
 Time: 15:15:46

		CONTROL	10 PPM	30 PPM	100 PPM	
<b>ALIMENTARY SYSTEM - cont</b>						
Carcinoma						
Stomach, Forestomach	(49)	(50)			1 (28)	(50)
Squamous Cell Carcinoma					(49)	1 (2%)
Squamous Cell Papilloma	1 (28)		1 (28%)		1 (28%)	1 (2%)
Stomach, Glandular	(48)	(48)	(47)		1 (28%)	(49)
Carcinoma						
<b>CARDIOVASCULAR SYSTEM</b>						
Heart						
Alveolar/Bronchiolar Carcinoma, Metastatic,						
Lung	(50)	(49)				(50)
Cholangiocarcinoma, Metastatic, Liver						
Hemangiosarcoma					1 (28%)	
Hepatocholangiocarcinoma, Metastatic, Liver	2 (48%)				1 (28%)	
Histiocytic Sarcoma	1 (28%)				1 (28%)	
<b>ENDOCRINE SYSTEM</b>						
Adrenal Cortex	(49)	(49)			(50)	(50)
Adenoma			1 (28%)			
Capsule, Adenoma	3 (6%)					
Adrenal Medulla	(49)	(49)				
Pheochromocytoma Malignant						
Pheochromocytoma Benign	2 (48%)					
Islets, Pancreatic	(49)	(48)				
Adenoma	1 (28%)					
Thyroid Gland	(49)	(49)				
Follicular Cell, Adenoma			1 (28%)			
<b>GENERAL BODY SYSTEM</b>						
None						

NTP Experiment-Test: 88004-06 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Study Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Report: PERIRPT05  
Date: 01/31/04  
Time: 15:15:46

B6C3F1 MICE MALE		CONTROL	10 PPM	30 PPM	100 PPM
<b>GENITAL SYSTEM</b>					
Epididymis					
Histiocytic Sarcoma		(50)	(50)	(50)	(50)
Sarcoma		1 (2%)	(50)	(50)	(50)
Testes		(50)	1 (2%)	2 (4%)	1 (2%)
Hemangioma					
Interstitial Cell, Adenoma		1 (2%)			
<b>HEMATOPOIETIC SYSTEM</b>					
Bone Marrow		(50)	(48)	(50)	(50)
Hemangiosarcoma		2 (4%)	1 (2%)		
Mast Cell Tumor Malignant		1 (2%)	(2)		
Lymph Node					
Iliac, Leiomyosarcoma, Metastatic, Intestine		1 (50%)			
Large, Rectum					
Pancreatic, Hepatochoangiocarcinoma,		1 (50%)			
Lymph Node, Bronchial		(35)	(34)	(33)	(37)
Cholangiocarcinoma, Metastatic, Liver		1 (3%)	1 (3%)		
Hepatocarcinoma, Metastatic, Liver		1 (3%)	1 (3%)		
Histiocytic Sarcoma					
Lymph Node, Mandibular		1 (3%)	(27)	(35)	(38)
Lymph Node, Mesenteric		(39)	(46)	(47)	(50)
Carcinoma, Metastatic, Pancreas		1 (44)	1 (46)	1 (2%)	
Hemangiosarcoma					
Hepatocholangiocarcinoma, Metastatic, Liver		1 (2%)	1 (2%)		
Lymph Node, Mediastinal		(37)	(38)	(33)	(29)
Carcinoma, Metastatic, Pancreas					
Carcinoma, Metastatic, Intestine Small,					
Duodenum					
Cholangiocarcinoma, Metastatic, Liver		1 (3%)	1 (3%)		
Hepatocarcinoma, Metastatic, Liver		1 (3%)	1 (3%)		
Histiocytic Sarcoma		1 (3%)	1 (3%)		
Mast Cell Tumor Malignant, Metastatic, Liver		1 (3%)			
Marrow					
Sarcoma, Metastatic, Skin		1 (3%)	1 (3%)		
Spleen					
Hemangiosarcoma		1 (49)	(48)	(50)	(50)
Mast Cell Tumor Malignant, Metastatic, Bone		1 (2%)	2 (4%)		
Marrow		1 (2%)			
Squamous Cell Carcinoma, Metastatic, Stomach,		1 (2%)			

NTP Experiment-Test: 88004-06 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)  
 Study Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY

Report: PEIRPT05  
 Date: 01/31/04  
 Time: 15:15:46

B6C3F1 MICE MALE		CONTROL	10 PPM	30 PPM	100 PPM
<b>HEMATOPOIETIC SYSTEM - cont</b>					
Forestomach					
Thymus	(44)	(41)	(43)	(44)	1 (2%)
Skin					
Subcutaneous Tissue, Fibrous Histiocytoma	2 (4%)	(50)	(50)	1 (2%)	(50)
Subcutaneous Tissue, Hemangioma	1 (2%)	1 (2%)	1 (2%)	1 (2%)	
Subcutaneous Tissue, Sarcoma	1 (2%)	1 (2%)	1 (2%)	1 (2%)	
<b>INTEGUMENTARY SYSTEM</b>					
Skeletal Muscle					
Cholangiocarcinoma, Metastatic, Liver					
Hepatochoangiocarcinoma, Metastatic, Liver					
MUSCULOSKELETAL SYSTEM					
Skeletal Muscle	(2)				
Cholangiocarcinoma, Metastatic, Liver		1 (50%)			
Hepatochoangiocarcinoma, Metastatic, Liver		1 (50%)			
<b>NERVOUS SYSTEM</b>					
None					
<b>RESPIRATORY SYSTEM</b>					
Lung	(49)	(49)	(49)	6 (12%)	(49)
Alveolar/Bronchiolar Adenoma	10 (20%)	5 (10%)	6 (12%)	13 (27%)	
Alveolar/Bronchiolar Adenoma, Multiple	2 (4%)	1 (2%)	2 (4%)	2 (4%)	
Alveolar/Bronchiolar Carcinoma	5 (10%)	4 (8%)	2 (4%)	8 (16%)	
Alveolar/Bronchiolar Carcinoma, Multiple					
Carcinoma, Metastatic, Pancreas					
Cholangiocarcinoma, Metastatic, Liver		1 (2%)	1 (2%)	1 (2%)	
Fibroma					
Hemangiosarcoma, Metastatic, Liver					
Hepatocellular Carcinoma, Metastatic, Liver	1 (2%)	1 (2%)	1 (2%)	1 (2%)	
Hepatochoangiocarcinoma, Metastatic, Liver	6 (12%)	5 (10%)	3 (6%)	1 (2%)	
Histiocytic Sarcoma	1 (2%)	1 (2%)	1 (2%)	1 (2%)	
Mast Cell Tumor Malignant, Metastatic, Bone	1 (2%)	1 (2%)	1 (2%)	1 (2%)	
Marrow					
Sarcoma, Metastatic, Skin					
Bronchus, Adenoma					1 (2%)

NTP Experiment-Test: 88004-06 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)  
 Study Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY

Report: PEIRPT05  
 Date: 01/31/04  
 Time: 15:15:46

		CONTROL	10 PPM	30 PPM	100 PPM
<b>SPECIAL SENSES SYSTEM</b>					
Harderian Gland			(50) 5 (10%)	(49) 3 (6%)	(50) 6 (12%)
Adenoma			1 (2%)	1 (2%)	
Carcinoma					7 (14%)
<b>URINARY SYSTEM</b>					
Kidney			(50)	(50)	(50)
Alveolar/Bronchiolar Carcinoma, Metastatic,				1 (2%)	
Lung				1 (2%)	
Hepatocarcinoma, Metastatic, Liver		1 (2%)		1 (2%)	
Renal Tubule, Adenoma					
Renal Tubule, Carcinoma		1 (2%)		1 (2%)	
<b>SYSTEMIC LESIONS</b>					
Multiple Organs		*	(50) 1 (2%)	*	(50) 1 (2%)
Histiocytic Sarcoma			1 (2%)		1 (2%)
Lymphoma Malignant					

\* Number of animals with any tissue examined microscopically

NTP Experiment-Test: 88004-06 INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)  
Study Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY

Report: PEIRPT05  
Date: 01/31/04  
Time: 15:15:46

B6C3F1 MICE MALE	CONTROL	10 PPM	30 PPM	100 PPM
<hr/>				
TUMOR SUMMARY				
Total Animals with Primary Neoplasms (b)	43	38	29	41
Total Primary Neoplasms	90	60	44	67
Total Animals with Benign Neoplasms	35	24	21	27
Total Benign Neoplasms	49	34	25	40
Total Animals with Malignant Neoplasms	26	21	14	23
Total Malignant Neoplasms	41	26	19	27
Total Animals with Metastatic Neoplasms	9	10	4	3
Total Metastatic Neoplasm	14	23	7	3
Total Animals with Malignant Neoplasms Uncertain Primary Site				
Total Animals with Neoplasms Uncertain- Benign or Malignant				
Total Uncertain Neoplasms				

a Number of animals examined microscopically at site and number of animals with lesion  
b Primary tumors: all tumors except metastatic tumors

END OF REPORT

NTP  
LAB: Battelle Northwest  
EXPERIMENT: 88004 TEST: 06  
TEST TYPE: CHRONIC  
CONT: NO1-ES-75410  
PATHOLOGIST: GRUMBEIN, SONDR

STATISTICAL ANALYSIS OF PRIMARY TUMORS  
DIVINYLBENZENE  
ROUTE: RESPIRATORY EXPOSURE WHOLE BODY

REPORT: PEIRPT08  
DATE: 01/31/04  
TIME: 15:15:55  
PAGE: 1  
NTP C#: 88004B  
CAS: 1321-74-0

-----  
REASONS FOR REMOVAL: ALL

REMOVAL DATE RANGE: ALL  
TREATMENT GROUPS: INCLUDE ALL

NTP  
LAB: Battelle Northwest  
EXPERIMENT: 88004 TEST: 06  
TEST TYPE: CHRONIC  
CONT: N01-ES-75410  
PATHOLOGIST: GRUMBEIN, SONDR  
Mice(B6C3F1)

STATISTICAL ANALYSIS OF PRIMARY TUMORS  
DIVINYLBENZENE

ROUTE: RESPIRATORY EXPOSURE WHOLE BODY

REPORT: PEIRPT08  
DATE: 01/31/04  
TIME: 15:15:55

NTP C#: 88004B  
CAS: 1321-74-0

FOR ALL DOSES THE TUMOR RATES IN THE FOLLOWING TISSUES/ORGANS ARE  
BASED ON NUMBER OF TISSUES EXAMINED. IN OTHER TISSUES/ORGANS RATES  
ARE BASED ON THE NUMBER OF ANIMALS NECROPSIED.

-----  
Adrenal Cortex  
Adrenal Medulla  
Bone Marrow  
Brain  
Epididymis  
Gallbladder  
Heart  
Islets, Pancreatic  
Kidney  
Liver  
Lung  
Nose  
Ovary  
Pancreas  
Pituitary Gland  
Spleen  
Testes  
Thyroid Gland

NTP  
LAB: Battelle Northwest  
EXPERIMENT: 88004 TEST: 06  
TEST TYPE: CHRONIC  
CONT: NO1-ES-75410  
PATHOLOGIST: GRUMBEIN, SONDR

STATISTICAL ANALYSIS OF PRIMARY TUMORS  
DIVINYLBENZENE

ROUTE: RESPIRATORY EXPOSURE WHOLE BODY

REPORT: PEIRPT08  
DATE: 01/31/04  
TIME: 15:15:55  
NTP C#: 88004B  
CAS: 1321-74-0

SUMMARY OF STATISTICALLY SIGNIFICANT (P<=.05) RESULTS  
IN THE ANALYSIS OF  
DIVINYLBENZENE

=====

Male Mice

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Organ	Morphology
Adrenal Cortex	Adenoma
Adrenal Medulla	Pheochromocytoma Benign
Heart	Hemangiosarcoma
Liver	Hemangiosarcoma
	Hepatocellular Adenoma
	Hepatocellular Carcinoma or Hepatocellular Adenoma
Lung	Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma
Skin	Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma
All Organs	Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma
	Fibrosarcoma, Sarcoma, Myxosarcoma, or Fibrous Histiocytoma
	Hemangiosarcoma
	Hemangiosarcoma or Hemangioma
	Benign Tumors
	Malignant Tumors
	Malignant and Benign Tumors

=====

Female Mice

=====

Organ	Morphology
Adrenal Medulla	Pheochromocytoma Malignant
Liver	Hepatocellular Adenoma
	Hepatocellular Carcinoma or Hepatocellular Adenoma
Ovary	Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma
Pituitary Gland: Pars Distalis or Unspecified Site	Cystadenoma
All Organs	Adenoma
	Malignant Lymphoma: Histiocytic, Lymphocytic, Mixed, NOS, or Undifferentiated Cell Type
	Benign Tumors
	Malignant Tumors
	Malignant and Benign Tumors

Date: 01/31/04

04 EXPERIMENT: 88004 TEST: 06  
Statistical Analysis of Primary Tumors in Mice(B6C3F1)  
Terminal Sacrifice at 105 weeks

Page 1

TERMINAL SACRIFICE AT 105 WEEKS										
Dose	Males				Females					
	CONTROL	10 PPM	30 PPM	100 PPM	CONTROL	10 PPM	30 PPM	100 PPM		
<b>Adrenal Cortex Adenoma</b>										
<b>TUMOR RATES</b>										
OVERALL (a)	3/49 (6%)	1/49 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	
POLY-3 RATE (b)	3/45.45	1/45.52	0/46.42	0/47.18	0/42.71	0/44.99	0/43.99	0/46.93		
POLY-3 PERCENT (g)	6.6%	2.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
TERMINAL (d)	3/41 (7%)	1/38 (3%)	0/42 (0%)	0/43 (0%)	0/33 (0%)	0/35 (0%)	0/38 (0%)	0/42 (0%)		
FIRST INCIDENCE	729 (T)	729 (T)	---	---	---	---	---	0/42 (0%)		
<b>STATISTICAL TESTS</b>										
LIFE TABLE	P=0.101N	P=0.333N	P=0.117N	P=0.113N	(e)	(e)	(e)	(e)	(e)	
POLY 3	P=0.104N	P=0.305N	P=0.115N	P=0.112N	(e)	(e)	(e)	(e)	(e)	
POLY 1.5	P=0.105N	P=0.306N	P=0.115N	P=0.114N	(e)	(e)	(e)	(e)	(e)	
POLY 6	P=0.103N	P=0.304N	P=0.114N	P=0.110N	(e)	(e)	(e)	(e)	(e)	
LOGISTIC REGRESSION	P=0.101N	P=0.333N	(e)							
COCH-ARM / FISHERS	P=0.107N	P=0.309N	P=0.117N	P=0.117N	(e)	(e)	(e)	(e)	(e)	
ORDER RESTRICTED	P=0.018N*	(e)								
<b>Adrenal Medulla Pheochromocytoma Benign</b>										
<b>TUMOR RATES</b>										
OVERALL (a)	2/49 (4%)	0/49 (0%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)	1/49 (2%)	0/50 (0%)	0/50 (0%)	
POLY-3 RATE (b)	2/45.45	0/45.52	0/46.42	0/47.18	0/41.71	0/44.99	1/43.89	0/46.93		
POLY-3 PERCENT (g)	4.4%	0.0%	0.0%	0.0%	0.0%	0.0%	2.3%	0.0%		
TERMINAL (d)	2/41 (5%)	0/38 (0%)	0/42 (0%)	0/43 (0%)	0/32 (0%)	0/35 (0%)	1/38 (3%)	0/42 (0%)		
FIRST INCIDENCE	729 (T)	---	---	---	---	---	731 (T)	---		
<b>STATISTICAL TESTS</b>										
LIFE TABLE	P=0.251N	P=0.255N	P=0.233N	P=0.228N	P=0.744N	(e)	P=0.534	(e)		
POLY 3	P=0.257N	P=0.237N	P=0.232N	P=0.229N	P=0.765N	(e)	P=0.510	(e)		
POLY 1.5	P=0.257N	P=0.237N	P=0.233N	P=0.231N	P=0.771N	(e)	P=0.507	(e)		
POLY 6	P=0.257N	P=0.236N	P=0.232N	P=0.226N	P=0.756N	(e)	P=0.515	(e)		
LOGISTIC REGRESSION	P=0.251N	(e)	(e)	(e)	(e)	(e)	P=0.534	(e)		
COCH-ARM / FISHERS	P=0.259N	P=0.247N	P=0.242N	P=0.242N	P=0.777N	(e)	P=0.500	(e)		
ORDER RESTRICTED	P=0.027N*	(e)	(e)	(e)	P=0.391	(e)	(e)	(e)		

Date: 01/31/04

EXPERIMENT: 88004 TEST: 06  
 Statistical Analysis of Primary Tumors in Mice(B6C3F1)  
 Terminal Sacrifice at 105 weeks

Page 2

DIVINYLBENZENE

Dose	Males				Females			
	CONTROL	10 PPM	30 PPM	100 PPM	CONTROL	10 PPM	30 PPM	100 PPM
<b>Adrenal Medulla</b>								
Pheochromocytoma Malignant								
<b>TUMOR RATES</b>								
OVERALL (a)	0/49 (0%)	0/49 (0%)	1/50 (2%)	0/50 (0%)	0/49 (0%)	0/50 (0%)	0/49 (0%)	2/50 (4%)
POLY-3 RATE (b)	0/45.45	0/45.52	1/46.42	0/47.18	0/41.71	0/44.99	0/43.89	2/46.93
POLY-3 PERCENT (g)	0.0%	0.0%	2.2%	0.0%	0.0%	0.0%	0.0%	4.3%
TERMINAL (d)	0/41 (0%)	0/38 (0%)	1/42 (2%)	0/43 (0%)	0/32 (0%)	0/35 (0%)	0/38 (0%)	2/42 (5%)
FIRST INCIDENCE	---	---	729 (T)	---	---	---	---	731 (T)
<b>STATISTICAL TESTS</b>								
LIFE TABLE	P=0.767N	(e)	P=0.505	(e)	P=0.061	(e)	(e)	P=0.300
POLY 3	P=0.773N	(e)	P=0.504	(e)	P=0.046 *	(e)	(e)	P=0.264
POLY 1.5	P=0.775N	(e)	P=0.504	(e)	P=0.044 *	(e)	(e)	P=0.254
POLY 6	P=0.771N	(e)	P=0.505	(e)	P=0.049 *	(e)	(e)	P=0.278
LOGISTIC REGRESSION	(e)	(e)	P=0.505	(e)	(e)	(e)	(e)	P=0.300
COCH-ARM / FISHERS	P=0.777N	(e)	P=0.505	(e)	P=0.043 *	(e)	(e)	P=0.253
ORDER RESTRICTED	P=0.385	(e)	(e)	(e)	P=0.040 *	(e)	(e)	(e)
Dose	Males				Females			
	CONTROL	10 PPM	30 PPM	100 PPM	CONTROL	10 PPM	30 PPM	100 PPM
<b>Adrenal Medulla</b>								
Pheochromocytoma: Benign, Complex, Malignant, NOS								
<b>TUMOR RATES</b>								
OVERALL (a)	2/49 (4%)	0/49 (0%)	1/50 (2%)	0/50 (0%)	0/49 (0%)	0/50 (0%)	1/49 (2%)	2/50 (4%)
POLY-3 RATE (b)	2/45.45	0/45.52	1/46.42	0/47.18	0/41.71	0/44.99	1/43.89	2/46.93
POLY-3 PERCENT (g)	4.4%	0.0%	2.2%	0.0%	0.0%	0.0%	2.3%	4.3%
TERMINAL (d)	2/41 (5%)	0/38 (0%)	1/42 (2%)	0/43 (0%)	0/32 (0%)	0/35 (0%)	1/38 (3%)	2/42 (5%)
FIRST INCIDENCE	729 (T)	---	729 (T)	---	---	---	731 (T)	731 (T)
<b>STATISTICAL TESTS</b>								
LIFE TABLE	P=0.261N	P=0.255N	P=0.492N	P=0.228N	P=0.127	(e)	P=0.534	P=0.300
POLY 3	P=0.269N	P=0.237N	P=0.493N	P=0.229N	P=0.104	(e)	P=0.510	P=0.264
POLY 1.5	P=0.270N	P=0.237N	P=0.493N	P=0.231N	P=0.098	(e)	P=0.507	P=0.254
POLY 6	P=0.266N	P=0.236N	P=0.492N	P=0.226N	P=0.113	(e)	P=0.515	P=0.278
LOGISTIC REGRESSION	P=0.261N	(e)	P=0.492N	(e)	(e)	(e)	P=0.534	P=0.300
COCH-ARM / FISHERS	P=0.272N	P=0.247N	P=0.492N	P=0.242N	P=0.092	(e)	P=0.500	P=0.253
ORDER RESTRICTED	P=0.069N	(e)	(e)	(e)	P=0.093	(e)	(e)	(e)

Date: 01/31/04

EXPERIMENT: 88004 TEST: 06  
 Statistical Analysis of Primary Tumors in Mice(B6C3F1)  
 Terminal Sacrifice at 105 weeks

Page 3  
 DIVINYLBENZENE

Dose	Males				Females			
	CONTROL	10 PPM	30 PPM	100 PPM	CONTROL	10 PPM	30 PPM	100 PPM
<b>Bone Marrow</b>								
Hemangiosarcoma								
<b>TUMOR RATES</b>								
OVERALL (a)	2/50 (4%)	1/48 (2%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	2/49 (4%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/46.11	1/45.48	0/46.42	0/47.18	0/41.88	2/44.33	0/43.99	0/46.93
POLY-3 PERCENT (g)	4.3%	2.2%	0.0%	0.0%	0.0%	4.5%	0.0%	0.0%
TERMINAL (d)	1/41 (2%)	0/38 (0%)	0/42 (0%)	0/43 (0%)	0/33 (0%)	1/35 (3%)	0/38 (0%)	0/42 (0%)
FIRST INCIDENCE	609	716	---	---	---	656	---	---
<b>STATISTICAL TESTS</b>								
LIFE TABLE	P=0.179N	P=0.512N	P=0.237N	P=0.232N	P=0.359N	P=0.249	(e)	(e)
POLY 3	P=0.183N	P=0.505N	P=0.236N	P=0.232N	P=0.365N	P=0.250	(e)	(e)
POLY 1.5	P=0.184N	P=0.508N	P=0.236N	P=0.234N	P=0.374N	P=0.246	(e)	(e)
POLY 6	P=0.182N	P=0.504N	P=0.235N	P=0.230N	P=0.355N	P=0.253	(e)	(e)
LOGISTIC REGRESSION	P=0.186N	P=0.557N	P=0.247N	P=0.254N	P=0.388N	P=0.238	(e)	(e)
COCH-ARM / FISHERS	P=0.183N	P=0.515N	P=0.247N	P=0.247N	P=0.388N	P=0.247	(e)	(e)
ORDER RESTRICTED	P=0.072N	(e)	(e)	(e)	P=0.237N	(e)	(e)	(e)
Dose	Males				Females			
	CONTROL	10 PPM	30 PPM	100 PPM	CONTROL	10 PPM	30 PPM	100 PPM
<b>Harderian Gland</b>								
Adenoma								
<b>TUMOR RATES</b>								
#	#	#	#	#	#	#	#	#
OVERALL (a)	5/50 (10%)	3/50 (6%)	6/50 (12%)	7/50 (14%)	4/50 (8%)	1/50 (2%)	4/50 (8%)	5/50 (10%)
POLY-3 RATE (b)	5/45.69	3/46.01	6/46.42	7/47.18	4/43.26	1/44.99	4/43.99	5/46.96
POLY-3 PERCENT (g)	10.9%	6.5%	12.9%	14.8%	9.3%	2.2%	9.1%	10.7%
TERMINAL (d)	5/41 (12%)	2/38 (5%)	6/42 (14%)	7/43 (16%)	2/33 (6%)	1/35 (3%)	4/38 (11%)	4/42 (10%)
FIRST INCIDENCE	729 (T)	711	729 (T)	729 (T)	596	731 (T)	731 (T)	725
<b>STATISTICAL TESTS</b>								
LIFE TABLE	P=0.252	P=0.396N	P=0.517	P=0.412	P=0.343	P=0.167N	P=0.576N	P=0.633N
POLY 3	P=0.221	P=0.353N	P=0.511	P=0.402	P=0.258	P=0.167N	P=0.634N	P=0.551
POLY 1.5	P=0.214	P=0.355N	P=0.507	P=0.393	P=0.241	P=0.170N	P=0.638N	P=0.528
POLY 6	P=0.231	P=0.351N	P=0.516	P=0.414	P=0.283	P=0.166N	P=0.629N	P=0.579
LOGISTIC REGRESSION	P=0.249	P=0.362N	P=0.517	P=0.412	P=0.277	P=0.171N	P=0.629N	P=0.543
COCH-ARM / FISHERS	P=0.204	P=0.357N	P=0.500	P=0.380	P=0.228	P=0.181N	P=0.643N	P=0.500
ORDER RESTRICTED	P=0.281	(e)	(e)	(e)	P=0.299	(e)	(e)	(e)

Date: 01/31/04

EXPERIMENT: 88004 TEST: 06  
 Statistical Analysis of Primary Tumors in Mice(B6C3F1)  
 Terminal Sacrifice at 105 weeks

Page 4  
 DIVINYLBENZENE

Dose	Males				Females			
	CONTROL	10 PPM	30 PPM	100 PPM	CONTROL	10 PPM	30 PPM	100 PPM
<b>Harderian Gland Carcinoma</b>								
<b>TUMOR RATES</b>								
OVERALL (a)	#	#	#	#	#	#	#	#
POLY-3 RATE (b)	1/50 (2%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	4/50 (8%)	1/50 (2%)	2/50 (4%)
POLY-3 PERCENT (g)	1/45.69	1/45.94	0/46.42	0/47.18	2/42.88	4/44.99	1/43.99	2/46.93
TERMINAL (d)	2.2%	2.2%	0.0%	0.0%	4.7%	8.9%	2.3%	4.3%
FIRST INCIDENCE	1/41 (2%)	1/38 (3%)	0/42 (0%)	0/43 (0%)	1/33 (3%)	4/35 (11%)	1/38 (3%)	2/42 (5%)
	729 (T)	729 (T)	---	---	687	731 (T)	731 (T)	731 (T)
<b>STATISTICAL TESTS</b>								
LIFE TABLE	P=0.311N	P=0.745	P=0.495N	P=0.490N	P=0.365N	P=0.368	P=0.456N	P=0.605N
POLY 3	P=0.323N	P=0.759N	P=0.497N	P=0.494N	P=0.430N	P=0.359	P=0.491N	P=0.661N
POLY 1.5	P=0.324N	P=0.760N	P=0.498N	P=0.496N	P=0.447N	P=0.354	P=0.495N	P=0.676N
POLY 6	P=0.322N	P=0.759N	P=0.495N	P=0.490N	P=0.410N	P=0.362	P=0.486N	P=0.642N
LOGISTIC REGRESSION	P=0.311N	P=0.745	(e)	(e)	P=0.392N	P=0.367	P=0.487N	P=0.657N
COCH-ARM / FISHERS	P=0.325N	P=0.753N	P=0.500N	P=0.500N	P=0.465N	P=0.339	P=0.500N	P=0.691N
ORDER RESTRICTED	P=0.245N	(e)	(e)	(e)	P=0.355N	(e)	(e)	(e)
<b>Harderian Gland Carcinoma or Adenoma</b>								
Dose	Males				Females			
	CONTROL	10 PPM	30 PPM	100 PPM	CONTROL	10 PPM	30 PPM	100 PPM
<b>TUMOR RATES</b>								
OVERALL (a)	#	#	#	#	#	#	#	#
POLY-3 RATE (b)	6/50 (12%)	4/50 (8%)	6/50 (12%)	7/50 (14%)	6/50 (12%)	5/50 (10%)	5/50 (10%)	7/50 (14%)
POLY-3 PERCENT (g)	6/45.69	4/46.01	6/46.42	7/47.18	6/43.43	5/44.99	5/43.99	7/46.96
TERMINAL (d)	13.1%	8.7%	12.9%	14.8%	13.8%	11.1%	11.4%	14.9%
FIRST INCIDENCE	6/41 (15%)	3/38 (8%)	6/42 (14%)	7/43 (16%)	3/33 (9%)	5/35 (14%)	5/38 (13%)	6/42 (14%)
	729 (T)	711	729 (T)	729 (T)	596	731 (T)	731 (T)	725
<b>STATISTICAL TESTS</b>								
LIFE TABLE	P=0.385	P=0.415N	P=0.605N	P=0.537	P=0.536	P=0.458N	P=0.417N	P=0.559N
POLY 3	P=0.347	P=0.365N	P=0.610N	P=0.525	P=0.417	P=0.475N	P=0.491N	P=0.560
POLY 1.5	P=0.338	P=0.368N	P=0.614N	P=0.514	P=0.391	P=0.480N	P=0.494N	P=0.533
POLY 6	P=0.359	P=0.364N	P=0.605N	P=0.538	P=0.453	P=0.477N	P=0.486N	P=0.591
LOGISTIC REGRESSION	P=0.383	P=0.378N	P=0.605N	P=0.537	P=0.458	P=0.465N	P=0.479N	P=0.561
COCH-ARM / FISHERS	P=0.325	P=0.370N	P=0.620N	P=0.500	P=0.367	P=0.500N	P=0.500N	P=0.500
ORDER RESTRICTED	P=0.448	(e)	(e)	(e)	P=0.540	(e)	(e)	(e)

Date: 01/31/04

EXPERIMENT: 88004 TEST: 06  
 Statistical Analysis of Primary Tumors in Mice(B6C3F1)  
 Terminal Sacrifice at 105 weeks

Page 5  
 DIVINYLBENZENE

Dose	Males				Females			
	CONTROL	10 PPM	30 PPM	100 PPM	CONTROL	10 PPM	30 PPM	100 PPM
<b>Heart</b>								
Hemangiosarcoma								
<b>TUMOR RATES</b>								
OVERALL (a)	2/50 (4%)	0/49 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/45.95	0/45.52	0/46.42	0/47.18	0/42.71	0/44.99	0/43.99	0/46.93
POLY-3 PERCENT (g)	4.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	1/41 (2%)	0/38 (0%)	0/42 (0%)	0/43 (0%)	0/33 (0%)	0/35 (0%)	0/38 (0%)	0/42 (0%)
FIRST INCIDENCE	662	---	---	---	---	---	---	---
<b>STATISTICAL TESTS</b>								
LIFE TABLE	P=0.252N	P=0.248N	P=0.235N	P=0.227N	(e)	(e)	(e)	(e)
POLY 3	P=0.261N	P=0.239N	P=0.235N	P=0.231N	(e)	(e)	(e)	(e)
POLY 1.5	P=0.260N	P=0.240N	P=0.236N	P=0.234N	(e)	(e)	(e)	(e)
POLY 6	P=0.260N	P=0.239N	P=0.234N	P=0.229N	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.264N	P=0.243N	P=0.240N	P=0.243N	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.261N	P=0.253N	P=0.247N	P=0.247N	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.027N*	(e)						
<b>Dose</b>								
Males				Females				
Dose	CONTROL	10 PPM	30 PPM	100 PPM	CONTROL	10 PPM	30 PPM	100 PPM
<b>Intestine Small: Jejunum</b>								
Carcinoma								
<b>TUMOR RATES</b>								
OVERALL (a)	# 3/50 (6%)	# 0/50 (0%)	# 0/50 (0%)	# 4/50 (8%)	# 0/50 (0%)	# 2/50 (4%)	# 0/50 (0%)	# 0/50 (0%)
POLY-3 RATE (b)	3/46.11	0/45.94	0/46.42	4/47.74	0/42.71	2/44.99	0/43.99	0/46.93
POLY-3 PERCENT (g)	6.5%	0.0%	0.0%	8.4%	0.0%	4.5%	0.0%	0.0%
TERMINAL (d)	2/41 (5%)	0/38 (0%)	0/42 (0%)	3/43 (7%)	0/33 (0%)	2/35 (6%)	0/38 (0%)	0/42 (0%)
FIRST INCIDENCE	609	---	---	558	---	731 (T)	---	---
<b>STATISTICAL TESTS</b>								
LIFE TABLE	P=0.136	P=0.131N	P=0.120N	P=0.522	P=0.350N	P=0.251	(e)	(e)
POLY 3	P=0.122	P=0.119N	P=0.118N	P=0.519	P=0.370N	P=0.249	(e)	(e)
POLY 1.5	P=0.120	P=0.119N	P=0.118N	P=0.511	P=0.378N	P=0.246	(e)	(e)
POLY 6	P=0.126	P=0.120N	P=0.117N	P=0.528	P=0.360N	P=0.251	(e)	(e)
LOGISTIC REGRESSION	P=0.108	P=0.120N	P=0.124N	P=0.476	(e)	P=0.251	(e)	(e)
COCH-ARM / FISHERS	P=0.119	P=0.121N	P=0.121N	P=0.500	P=0.392N	P=0.247	(e)	(e)
ORDER RESTRICTED	P=0.082	(e)	(e)	(e)	P=0.240N	(e)	(e)	(e)

Date: 01/31/04

EXPERIMENT: 88004 TEST: 06  
 Statistical Analysis of Primary Tumors in Mice(B6C3F1)  
 Terminal Sacrifice at 105 weeks

Page 6  
 DIVINYLBENZENE

Dose	Males				Females			
	CONTROL	10 PPM	30 PPM	100 PPM	CONTROL	10 PPM	30 PPM	100 PPM
<b>Intestine Small: Site Unspecified Carcinoma</b>								
<b>TUMOR RATES</b>								
OVERALL (a)	3/50 (6%)	1/50 (2%)	0/50 (0%)	5/50 (10%)	0/50 (0%)	2/50 (4%)	1/50 (2%)	0/50 (0%)
POLY-3 RATE (b)	3/46.11	1/46.26	0/46.42	5/47.74	0/42.71	2/44.99	1/43.99	0/46.93
POLY-3 PERCENT (g)	6.5%	2.2%	0.0%	10.5%	0.0%	4.5%	2.3%	0.0%
TERMINAL (d)	2/41 (5%)	0/38 (0%)	0/42 (0%)	4/43 (9%)	0/33 (0%)	2/35 (6%)	1/38 (3%)	0/42 (0%)
FIRST INCIDENCE	609	641	---	558	---	731 (T)	731 (T)	---
<b>STATISTICAL TESTS</b>								
LIFE TABLE	P=0.098	P=0.317N	P=0.120N	P=0.381	P=0.330N	P=0.251	P=0.528	(e)
POLY 3	P=0.084	P=0.304N	P=0.118N	P=0.376	P=0.353N	P=0.249	P=0.506	(e)
POLY 1.5	P=0.082	P=0.305N	P=0.118N	P=0.368	P=0.366N	P=0.246	P=0.503	(e)
POLY 6	P=0.086	P=0.304N	P=0.117N	P=0.385	P=0.338N	P=0.251	P=0.510	(e)
LOGISTIC REGRESSION	P=0.072	P=0.302N	P=0.124N	P=0.337	(e)	P=0.251	P=0.528	(e)
COCH-ARM / FISHERS	P=0.081	P=0.309N	P=0.121N	P=0.357	P=0.383N	P=0.247	P=0.500	(e)
ORDER RESTRICTED	P=0.060	(e)	(e)	(e)	P=0.318N	(e)	(e)	(e)
<b>Dose</b>								
	Males				Females			
	CONTROL	10 PPM	30 PPM	100 PPM	CONTROL	10 PPM	30 PPM	100 PPM
<b>Liver Hemangiosarcoma</b>								
<b>TUMOR RATES</b>								
OVERALL (a)	3/50 (6%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	3/46.36	1/45.99	0/46.42	0/47.18	0/41.88	0/44.99	0/43.99	0/46.93
POLY-3 PERCENT (g)	6.5%	2.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	1/41 (2%)	0/38 (0%)	0/42 (0%)	0/43 (0%)	0/33 (0%)	0/35 (0%)	0/38 (0%)	0/42 (0%)
FIRST INCIDENCE	609	716	---	---	---	---	---	---
<b>STATISTICAL TESTS</b>								
LIFE TABLE	P=0.105N	P=0.318N	P=0.121N	P=0.116N	(e)	(e)	(e)	(e)
POLY 3	P=0.106N	P=0.308N	P=0.119N	P=0.116N	(e)	(e)	(e)	(e)
POLY 1.5	P=0.107N	P=0.307N	P=0.119N	P=0.117N	(e)	(e)	(e)	(e)
POLY 6	P=0.105N	P=0.311N	P=0.119N	P=0.114N	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.115N	P=0.303N	P=0.128N	P=0.133N	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.110N	P=0.309N	P=0.121N	P=0.121N	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.019N*	(e)	(e)	(e)	(e)	(e)	(e)	(e)

Date: 01/31/04

EXPERIMENT: 88004 TEST: 06  
 Statistical Analysis of Primary Tumors in Mice(B6C3F1)  
 Terminal Sacrifice at 105 weeks

Page 7  
 DIVINYLBENZENE

Dose	Males				Females			
	CONTROL	10 PPM	30 PPM	100 PPM	CONTROL	10 PPM	30 PPM	100 PPM
<b>Liver</b>								
Hepatoblastoma								
<b>TUMOR RATES</b>								
OVERALL (a)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	0/49 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	0/45.69	0/45.94	2/47.35	0/47.18	0/41.88	0/44.99	0/43.99	0/46.93
POLY-3 PERCENT (g)	0.0%	0.0%	4.2%	0.0%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	0/41 (0%)	0/38 (0%)	0/42 (0%)	0/43 (0%)	0/33 (0%)	0/35 (0%)	0/38 (0%)	0/42 (0%)
FIRST INCIDENCE	---	---	479	---	---	---	---	---
<b>STATISTICAL TESTS</b>								
LIFE TABLE	P=0.668N	(e)	P=0.247	(e)	(e)	(e)	(e)	(e)
POLY 3	P=0.666N	(e)	P=0.245	(e)	(e)	(e)	(e)	(e)
POLY 1.5	P=0.670N	(e)	P=0.242	(e)	(e)	(e)	(e)	(e)
POLY 6	P=0.660N	(e)	P=0.249	(e)	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.747N	(e)	P=0.179	(e)	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.675N	(e)	P=0.247	(e)	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.254	(e)	(e)	(e)	(e)	(e)	(e)	(e)
<b>Liver</b>								
Hepatocellular Adenoma								
Dose	Males				Females			
	CONTROL	10 PPM	30 PPM	100 PPM	CONTROL	10 PPM	30 PPM	100 PPM
<b>TUMOR RATES</b>								
OVERALL (a)	22/50 (44%)	17/50 (34%)	12/50 (24%)	12/50 (24%)	17/49 (35%)	7/50 (14%)	6/50 (12%)	5/50 (10%)
POLY-3 RATE (b)	22/46.70	17/47.51	12/47.55	12/47.18	17/42.80	7/45.62	6/44.08	5/46.93
POLY-3 PERCENT (g)	47.1%	35.8%	25.2%	25.4%	39.7%	15.4%	13.6%	10.7%
TERMINAL (d)	20/41 (49%)	13/38 (34%)	9/42 (21%)	12/43 (28%)	13/33 (39%)	5/35 (14%)	5/38 (13%)	5/42 (12%)
FIRST INCIDENCE	456	543	526	729 (T)	625	537	709	731 (T)
<b>STATISTICAL TESTS</b>								
LIFE TABLE	P=0.028N*	P=0.290N	P=0.028N*	P=0.019N*	P=0.006N**	P=0.014N*	P=0.004N**	P<0.001N**
POLY 3	P=0.039N*	P=0.181N	P=0.020N*	P=0.022N*	P=0.010N*	P=0.008N**	P=0.004N**	P<0.001N**
POLY 1.5	P=0.040N*	P=0.193N	P=0.023N*	P=0.024N*	P=0.012N*	P=0.009N**	P=0.005N**	P<0.001N**
POLY 6	P=0.037N*	P=0.167N	P=0.018N*	P=0.019N*	P=0.008N**	P=0.008N**	P=0.004N**	P<0.001N**
LOGISTIC REGRESSION	P=0.039N*	P=0.204N	P=0.027N*	P=0.020N*	P=0.010N*	P=0.010N*	P=0.005N**	P<0.001N**
COCH-ARM / FISHERS	P=0.043N*	P=0.206N	P=0.028N*	P=0.028N*	P=0.017N*	P=0.015N*	P=0.007N**	P=0.003N**
ORDER RESTRICTED	P=0.015N*	(e)	(e)	(e)	P<0.001N**	(e)	(e)	(e)

Date: 01/31/04

EXPERIMENT: 88004 TEST: 06  
 Statistical Analysis of Primary Tumors in Mice(B6C3F1)  
 Terminal Sacrifice at 105 weeks

Page 8  
 DIVINYLBENZENE

Dose	Males				Females			
	CONTROL	10 PPM	30 PPM	100 PPM	CONTROL	10 PPM	30 PPM	100 PPM
<b>Liver</b>								
Hepatocellular Carcinoma								
<b>TUMOR RATES</b>								
OVERALL (a)	13/50 (26%)	11/50 (22%)	9/50 (18%)	10/50 (20%)	5/49 (10%)	4/50 (8%)	3/50 (6%)	2/50 (4%)
POLY-3 RATE (b)	13/47.80	11/47.65	9/48.87	10/47.79	5/42.74	4/45.04	3/44.67	2/46.93
POLY-3 PERCENT (g)	27.2%	23.1%	18.4%	20.9%	11.7%	8.9%	6.7%	4.3%
TERMINAL (d)	8/41 (20%)	5/38 (13%)	4/42 (10%)	9/43 (21%)	3/33 (9%)	3/35 (9%)	2/38 (5%)	2/42 (5%)
FIRST INCIDENCE	565	600	479	533	586	719	501	731 (T)
<b>STATISTICAL TESTS</b>								
LIFE TABLE	P=0.298N	P=0.447N	P=0.236N	P=0.287N	P=0.129N	P=0.465N	P=0.313N	P=0.149N
POLY 3	P=0.347N	P=0.411N	P=0.216N	P=0.317N	P=0.162N	P=0.467N	P=0.332N	P=0.180N
POLY 1.5	P=0.345N	P=0.411N	P=0.223N	P=0.316N	P=0.173N	P=0.471N	P=0.337N	P=0.192N
POLY 6	P=0.352N	P=0.411N	P=0.212N	P=0.321N	P=0.147N	P=0.470N	P=0.327N	P=0.166N
LOGISTIC REGRESSION	P=0.403N	P=0.411N	P=0.264N	P=0.347N	P=0.181N	P=0.470N	P=0.351N	P=0.204N
COCH-ARM / FISHERS	P=0.346N	P=0.408N	P=0.235N	P=0.318N	P=0.183N	P=0.487N	P=0.346N	P=0.210N
ORDER RESTRICTED	P=0.300N	(e)	(e)	(e)	P=0.148N	(e)	(e)	(e)
Dose	Males				Females			
	CONTROL	10 PPM	30 PPM	100 PPM	CONTROL	10 PPM	30 PPM	100 PPM
<b>Liver</b>								
Hepatocellular Carcinoma or Hepatoblastoma								
<b>TUMOR RATES</b>								
OVERALL (a)	13/50 (26%)	11/50 (22%)	9/50 (18%)	10/50 (20%)	5/49 (10%)	4/50 (8%)	3/50 (6%)	2/50 (4%)
POLY-3 RATE (b)	13/47.80	11/47.65	9/48.87	10/47.79	5/42.74	4/45.04	3/44.67	2/46.93
POLY-3 PERCENT (g)	27.2%	23.1%	18.4%	20.9%	11.7%	8.9%	6.7%	4.3%
TERMINAL (d)	8/41 (20%)	5/38 (13%)	4/42 (10%)	9/43 (21%)	3/33 (9%)	3/35 (9%)	2/38 (5%)	2/42 (5%)
FIRST INCIDENCE	565	600	479	533	586	719	501	731 (T)
<b>STATISTICAL TESTS</b>								
LIFE TABLE	P=0.298N	P=0.447N	P=0.236N	P=0.287N	P=0.129N	P=0.465N	P=0.313N	P=0.149N
POLY 3	P=0.347N	P=0.411N	P=0.216N	P=0.317N	P=0.162N	P=0.467N	P=0.332N	P=0.180N
POLY 1.5	P=0.345N	P=0.411N	P=0.223N	P=0.316N	P=0.173N	P=0.471N	P=0.337N	P=0.192N
POLY 6	P=0.352N	P=0.411N	P=0.212N	P=0.321N	P=0.147N	P=0.470N	P=0.327N	P=0.166N
LOGISTIC REGRESSION	P=0.403N	P=0.411N	P=0.264N	P=0.347N	P=0.181N	P=0.470N	P=0.351N	P=0.204N
COCH-ARM / FISHERS	P=0.346N	P=0.408N	P=0.235N	P=0.318N	P=0.183N	P=0.487N	P=0.346N	P=0.210N
ORDER RESTRICTED	P=0.300N	(e)	(e)	(e)	P=0.148N	(e)	(e)	(e)

Date: 01/31/04

EXPERIMENT: 88004 TEST: 06  
 Statistical Analysis of Primary Tumors in Mice(B6C3F1)  
 Terminal Sacrifice at 105 weeks

Page 9  
 DIVINYLBENZENE

Dose	Males				Females			
	CONTROL	10 PPM	30 PPM	100 PPM	CONTROL	10 PPM	30 PPM	100 PPM
<b>Liver</b>								
Hepatocellular Carcinoma or Hepatocellular Adenoma								
<b>TUMOR RATES</b>								
OVERALL (a)	30/50 (60%)	26/50 (52%)	20/50 (40%)	22/50 (44%)	19/49 (39%)	10/50 (20%)	8/50 (16%)	7/50 (14%)
POLY-3 RATE (b)	30/48.55	26/48.90	20/50.00	22/47.79	19/43.29	10/45.66	8/44.75	7/46.93
POLY-3 PERCENT (g)	61.8%	53.2%	40.0%	46.0%	43.9%	21.9%	17.9%	14.9%
TERMINAL (d)	24/41 (59%)	17/38 (45%)	12/42 (29%)	21/43 (49%)	14/33 (42%)	7/35 (20%)	6/38 (16%)	7/42 (17%)
FIRST INCIDENCE	456	543	479	533	586	537	501	731 (T)
<b>STATISTICAL TESTS</b>								
LIFE TABLE	P=0.084N	P=0.394N	P=0.051N	P=0.062N	P=0.006N**	P=0.031N*	P=0.006N**	P<0.001N**
POLY 3	P=0.131N	P=0.256N	P=0.023N*	P=0.086N	P=0.012N*	P=0.021N*	P=0.006N**	P=0.002N**
POLY 1.5	P=0.122N	P=0.267N	P=0.027N*	P=0.083N	P=0.014N*	P=0.023N*	P=0.007N**	P=0.002N**
POLY 6	P=0.145N	P=0.241N	P=0.019N*	P=0.092N	P=0.009N**	P=0.021N*	P=0.006N**	P<0.001N**
LOGISTIC REGRESSION	P=0.131N	P=0.275N	P=0.039N*	P=0.077N	P=0.013N*	P=0.023N*	P=0.008N**	P=0.002N**
COCH-ARM / FISHERS	P=0.112N	P=0.273N	P=0.036N*	P=0.080N	P=0.019N*	P=0.033N*	P=0.010N*	P=0.005N**
ORDER RESTRICTED	P=0.045N*	(e)	(e)	(e)	P<0.001N**	(e)	(e)	(e)
Dose	Males				Females			
	CONTROL	10 PPM	30 PPM	100 PPM	CONTROL	10 PPM	30 PPM	100 PPM
<b>Liver</b>								
Hepatocellular Carcinoma, Hepatocellular Adenoma, or Hepatoblastoma								
<b>TUMOR RATES</b>								
OVERALL (a)	30/50 (60%)	26/50 (52%)	20/50 (40%)	22/50 (44%)	19/49 (39%)	10/50 (20%)	8/50 (16%)	7/50 (14%)
POLY-3 RATE (b)	30/48.55	26/48.90	20/50.00	22/47.79	19/43.29	10/45.66	8/44.75	7/46.93
POLY-3 PERCENT (g)	61.8%	53.2%	40.0%	46.0%	43.9%	21.9%	17.9%	14.9%
TERMINAL (d)	24/41 (59%)	17/38 (45%)	12/42 (29%)	21/43 (49%)	14/33 (42%)	7/35 (20%)	6/38 (16%)	7/42 (17%)
FIRST INCIDENCE	456	543	479	533	586	537	501	731 (T)
<b>STATISTICAL TESTS</b>								
LIFE TABLE	P=0.084N	P=0.394N	P=0.051N	P=0.062N	P=0.006N**	P=0.031N*	P=0.006N**	P<0.001N**
POLY 3	P=0.131N	P=0.256N	P=0.023N*	P=0.086N	P=0.012N*	P=0.021N*	P=0.006N**	P=0.002N**
POLY 1.5	P=0.122N	P=0.267N	P=0.027N*	P=0.083N	P=0.014N*	P=0.023N*	P=0.007N**	P=0.002N**
POLY 6	P=0.145N	P=0.241N	P=0.019N*	P=0.092N	P=0.009N**	P=0.021N*	P=0.006N**	P<0.001N**
LOGISTIC REGRESSION	P=0.131N	P=0.275N	P=0.039N*	P=0.077N	P=0.013N*	P=0.023N*	P=0.008N**	P=0.002N**
COCH-ARM / FISHERS	P=0.112N	P=0.273N	P=0.036N*	P=0.080N	P=0.019N*	P=0.033N*	P=0.010N*	P=0.005N**
ORDER RESTRICTED	P=0.045N*	(e)	(e)	(e)	P<0.001N**	(e)	(e)	(e)

Date: 01/31/04

EXPERIMENT: 88004 TEST: 06  
 Statistical Analysis of Primary Tumors in Mice(B6C3F1)  
 Terminal Sacrifice at 105 weeks

Page 10  
 DIVINYLBENZENE

Dose	Males				Females			
	CONTROL	10 PPM	30 PPM	100 PPM	CONTROL	10 PPM	30 PPM	100 PPM
<b>Lung</b>								
Alveolar/Bronchiolar Adenoma								
<b>TUMOR RATES</b>								
OVERALL (a)	12/49 (24%)	6/49 (12%)	6/49 (12%)	15/49 (31%)	4/50 (8%)	9/50 (18%)	4/50 (8%)	8/49 (16%)
POLY-3 RATE (b)	12/46.05	6/45.52	6/46.05	15/47.42	4/42.71	9/44.99	4/44.08	8/46.89
POLY-3 PERCENT (g)	26.1%	13.2%	13.0%	31.6%	9.4%	20.0%	9.1%	17.1%
TERMINAL (d)	11/41 (27%)	6/38 (16%)	6/42 (14%)	13/43 (30%)	4/33 (12%)	9/35 (26%)	3/38 (8%)	7/42 (17%)
FIRST INCIDENCE	536	729 (T)	729 (T)	598	731 (T)	731 (T)	709	697
<b>STATISTICAL TESTS</b>								
LIFE TABLE	P=0.091	P=0.126N	P=0.087N	P=0.381	P=0.469	P=0.134	P=0.565N	P=0.315
POLY 3	P=0.067	P=0.097N	P=0.093N	P=0.358	P=0.352	P=0.134	P=0.626N	P=0.225
POLY 1.5	P=0.063	P=0.097N	P=0.094N	P=0.343	P=0.316	P=0.129	P=0.633N	P=0.199
POLY 6	P=0.075	P=0.098N	P=0.091N	P=0.381	P=0.399	P=0.137	P=0.615N	P=0.259
LOGISTIC REGRESSION	P=0.070	P=0.094N	P=0.090N	P=0.340	P=0.446	P=0.134	P=0.592N	P=0.289
COCH-ARM / FISHERS	P=0.060	P=0.096N	P=0.096N	P=0.326	P=0.276	P=0.117	P=0.643N	P=0.168
ORDER RESTRICTED	P=0.063	(e)	(e)	(e)	P=0.233	(e)	(e)	(e)
<b>Lung</b>								
Alveolar/Bronchiolar Carcinoma								
<b>TUMOR RATES</b>								
OVERALL (a)	5/49 (10%)	4/49 (8%)	3/49 (6%)	9/49 (18%)	2/50 (4%)	5/50 (10%)	4/50 (8%)	5/49 (10%)
POLY-3 RATE (b)	5/45.45	4/45.59	3/46.05	9/47.20	2/42.71	5/45.04	4/44.59	5/46.77
POLY-3 PERCENT (g)	11.0%	8.8%	6.5%	19.1%	4.7%	11.1%	9.0%	10.7%
TERMINAL (d)	5/41 (12%)	3/38 (8%)	3/42 (7%)	7/43 (16%)	2/33 (6%)	4/35 (11%)	3/38 (8%)	4/42 (10%)
FIRST INCIDENCE	729 (T)	711	729 (T)	669	731 (T)	719	536	729
<b>STATISTICAL TESTS</b>								
LIFE TABLE	P=0.088	P=0.544N	P=0.343N	P=0.228	P=0.443	P=0.245	P=0.395	P=0.326
POLY 3	P=0.069	P=0.498N	P=0.349N	P=0.214	P=0.360	P=0.238	P=0.357	P=0.255
POLY 1.5	P=0.066	P=0.500N	P=0.353N	P=0.205	P=0.330	P=0.232	P=0.349	P=0.234
POLY 6	P=0.075	P=0.496N	P=0.345N	P=0.229	P=0.397	P=0.242	P=0.369	P=0.280
LOGISTIC REGRESSION	P=0.074	P=0.509N	P=0.343N	P=0.213	P=0.358	P=0.251	P=0.343	P=0.333
COCH-ARM / FISHERS	P=0.062	P=0.500N	P=0.357N	P=0.194	P=0.295	P=0.218	P=0.339	P=0.210
ORDER RESTRICTED	P=0.088	(e)	(e)	(e)	P=0.256	(e)	(e)	(e)

Date: 01/31/04

EXPERIMENT: 88004 TEST: 06  
 Statistical Analysis of Primary Tumors in Mice(B6C3F1)  
 Terminal Sacrifice at 105 weeks

Page 11  
 DIVINYLBENZENE

Dose	Males				Females			
	CONTROL	10 PPM	30 PPM	100 PPM	CONTROL	10 PPM	30 PPM	100 PPM
<b>Lung</b>								
Alveolar/Bronchiolar Carcinoma or Alveolar/Bronchiolar Adenoma								
<b>TUMOR RATES</b>								
OVERALL (a)	16/49 (33%)	10/49 (20%)	8/49 (16%)	20/49 (41%)	6/50 (12%)	12/50 (24%)	8/50 (16%)	13/49 (27%)
POLY-3 RATE (b)	16/46.05	10/45.59	8/46.05	20/47.65	6/42.71	12/45.04	8/44.68	13/46.90
POLY-3 PERCENT (g)	34.7%	21.9%	17.4%	42.0%	14.1%	26.7%	17.9%	27.7%
TERMINAL (d)	15/41 (37%)	9/38 (24%)	8/42 (19%)	17/43 (40%)	6/33 (18%)	11/35 (31%)	6/38 (16%)	11/42 (26%)
FIRST INCIDENCE	536	711	729 (T)	598	731 (T)	719	536	697
<b>STATISTICAL TESTS</b>								
LIFE TABLE	P=0.079	P=0.174N	P=0.042N*	P=0.332	P=0.284	P=0.117	P=0.491	P=0.171
POLY 3	P=0.053	P=0.128N	P=0.046N*	P=0.306	P=0.161	P=0.114	P=0.421	P=0.092
POLY 1.5	P=0.048 *	P=0.128N	P=0.047N*	P=0.286	P=0.133	P=0.109	P=0.407	P=0.074
POLY 6	P=0.062	P=0.128N	P=0.044N*	P=0.339	P=0.204	P=0.117	P=0.443	P=0.118
LOGISTIC REGRESSION	P=0.056	P=0.121N	P=0.044N*	P=0.287	P=0.205	P=0.127	P=0.413	P=0.155
COCH-ARM / FISHERS	P=0.045 *	P=0.126N	P=0.049N*	P=0.265	P=0.105	P=0.096	P=0.387	P=0.056
ORDER RESTRICTED	P=0.041 *	(e)	(e)	(e)	P=0.088	(e)	(e)	(e)
<b>Dose</b>								
Dose	Males				Females			
	CONTROL	10 PPM	30 PPM	100 PPM	CONTROL	10 PPM	30 PPM	100 PPM
<b>Mammary Gland</b>								
Carcinoma								
<b>TUMOR RATES</b>								
#	#	#	#	#	#	#	#	#
OVERALL (a)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	2/50 (4%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	0/45.69	0/45.94	0/46.42	0/47.18	0/42.71	2/45.40	0/43.99	1/46.94
POLY-3 PERCENT (g)	0.0%	0.0%	0.0%	0.0%	0.0%	4.4%	0.0%	2.1%
TERMINAL (d)	0/41 (0%)	0/38 (0%)	0/42 (0%)	0/43 (0%)	0/33 (0%)	1/35 (3%)	0/38 (0%)	0/42 (0%)
FIRST INCIDENCE	---	---	---	---	---	613	---	729
<b>STATISTICAL TESTS</b>								
LIFE TABLE	(e)	(e)	(e)	(e)	P=0.661	P=0.251	(e)	P=0.553
POLY 3	(e)	(e)	(e)	(e)	P=0.647	P=0.251	(e)	P=0.519
POLY 1.5	(e)	(e)	(e)	(e)	P=0.634	P=0.247	(e)	P=0.510
POLY 6	(e)	(e)	(e)	(e)	P=0.663	P=0.254	(e)	P=0.529
LOGISTIC REGRESSION	(e)	(e)	(e)	(e)	P=0.616	P=0.221	(e)	P=0.546
COCH-ARM / FISHERS	(e)	(e)	(e)	(e)	P=0.617	P=0.247	(e)	P=0.500
ORDER RESTRICTED	(e)	(e)	(e)	(e)	P=0.331	(e)	(e)	(e)

Date: 01/31/04

EXPERIMENT: 88004 TEST: 06  
 Statistical Analysis of Primary Tumors in Mice(B6C3F1)  
 Terminal Sacrifice at 105 weeks

Page 12  
 DIVINYLBENZENE

Dose	Males			Females				
	CONTROL	10 PPM	30 PPM	100 PPM	CONTROL	10 PPM	30 PPM	100 PPM
<b>Ovary</b>								
Cystadenoma								
<b>TUMOR RATES</b>								
OVERALL (a)					3/48 (6%)	0/50 (0%)	0/49 (0%)	1/49 (2%)
POLY-3 RATE (b)					3/40.96	0/44.99	0/42.99	1/45.93
POLY-3 PERCENT (g)					7.3%	0.0%	0.0%	2.2%
TERMINAL (d)					3/33 (9%)	0/35 (0%)	0/37 (0%)	1/41 (2%)
FIRST INCIDENCE					731 (T)	---	---	731 (T)
<b>STATISTICAL TESTS</b>								
LIFE TABLE					P=0.414N	P=0.110N	P=0.101N	P=0.231N
POLY 3					P=0.475N	P=0.102N	P=0.110N	P=0.265N
POLY 1.5					P=0.477N	P=0.105N	P=0.112N	P=0.280N
POLY 6					P=0.469N	P=0.101N	P=0.107N	P=0.249N
LOGISTIC REGRESSION					P=0.414N	(e)	(e)	P=0.231N
COCH-ARM / FISHERS					P=0.473N	P=0.114N	P=0.117N	P=0.301N
ORDER RESTRICTED					P=0.027N*	(e)	(e)	(e)
Dose	Males			Females				
	CONTROL	10 PPM	30 PPM	100 PPM	CONTROL	10 PPM	30 PPM	100 PPM
<b>Pituitary Gland: Pars Distalis or Unspecified Site</b>								
Adenoma								
<b>TUMOR RATES</b>								
OVERALL (a)		0/48 (0%)	0/47 (0%)	0/47 (0%)	0/46 (0%)	8/47 (17%)	8/50 (16%)	1/49 (2%)
POLY-3 RATE (b)		0/43.90	0/44.39	0/44.18	0/44.12	8/40.43	8/45.23	1/42.99
POLY-3 PERCENT (g)		0.0%	0.0%	0.0%	0.0%	19.8%	17.7%	2.3%
TERMINAL (d)		0/40 (0%)	0/38 (0%)	0/41 (0%)	0/41 (0%)	6/31 (19%)	6/35 (17%)	1/37 (3%)
FIRST INCIDENCE		---	---	---	---	596	693	731 (T)
<b>STATISTICAL TESTS</b>								
LIFE TABLE		(e)	(e)	(e)	(e)	P=0.004N**	P=0.511N	P=0.010N*
POLY 3		(e)	(e)	(e)	(e)	P=0.005N**	P=0.511N	P=0.011N*
POLY 1.5		(e)	(e)	(e)	(e)	P=0.006N**	P=0.523N	P=0.012N*
POLY 6		(e)	(e)	(e)	(e)	P=0.004N**	P=0.506N	P=0.011N*
LOGISTIC REGRESSION		(e)	(e)	(e)	(e)	P=0.006N**	P=0.499N	P=0.013N*
COCH-ARM / FISHERS		(e)	(e)	(e)	(e)	P=0.009N**	P=0.554N	P=0.013N*
ORDER RESTRICTED		(e)	(e)	(e)	(e)	P=0.006N**	(e)	(e)

Date: 01/31/04

EXPERIMENT: 88004 TEST: 06  
 Statistical Analysis of Primary Tumors in Mice(B6C3F1)  
 Terminal Sacrifice at 105 weeks

Page 13  
 DIVINYLBENZENE

Dose	Males				Females			
	CONTROL	10 PPM	30 PPM	100 PPM	CONTROL	10 PPM	30 PPM	100 PPM
<b>Skin</b>								
Fibroma, Fibrosarcoma, Sarcoma, Myxoma, Myxosarcoma, or Fibrous Histiocytoma								
<b>TUMOR RATES</b>	#	#	#	#	#	#	#	#
OVERALL (a)	3/50 (6%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	1/50 (2%)	2/50 (4%)	3/50 (6%)	1/50 (2%)
POLY-3 RATE (b)	3/46.30	1/46.06	1/46.42	0/47.18	1/43.48	2/45.99	3/44.61	1/47.06
POLY-3 PERCENT (g)	6.5%	2.2%	2.2%	0.0%	2.3%	4.4%	6.7%	2.1%
TERMINAL (d)	2/41 (5%)	0/38 (0%)	1/42 (2%)	0/43 (0%)	0/33 (0%)	0/35 (0%)	1/38 (3%)	0/42 (0%)
FIRST INCIDENCE	536	697	729 (T)	---	450	506	564	697
<b>STATISTICAL TESTS</b>								
LIFE TABLE	P=0.117N	P=0.317N	P=0.301N	P=0.118N	P=0.453N	P=0.525	P=0.335	P=0.731N
POLY 3	P=0.120N	P=0.307N	P=0.304N	P=0.115N	P=0.469N	P=0.520	P=0.314	P=0.743N
POLY 1.5	P=0.121N	P=0.307N	P=0.305N	P=0.117N	P=0.485N	P=0.514	P=0.310	P=0.751N
POLY 6	P=0.118N	P=0.308N	P=0.304N	P=0.113N	P=0.446N	P=0.525	P=0.322	P=0.731N
LOGISTIC REGRESSION	P=0.129N	P=0.301N	P=0.316N	P=0.134N	P=0.503N	P=0.230	P=0.284	P=0.750
COCH-ARM / FISHERS	P=0.123N	P=0.309N	P=0.309N	P=0.121N	P=0.500N	P=0.500	P=0.309	P=0.753N
ORDER RESTRICTED	P=0.035N*	(e)	(e)	(e)	P=0.446N	(e)	(e)	(e)
<b>Skin</b>								
Fibrosarcoma, Sarcoma, Myxosarcoma, or Fibrous Histiocytoma								
<b>TUMOR RATES</b>	#	#	#	#	#	#	#	#
OVERALL (a)	3/50 (6%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	1/50 (2%)	2/50 (4%)	3/50 (6%)	1/50 (2%)
POLY-3 RATE (b)	3/46.30	1/46.06	1/46.42	0/47.18	1/43.48	2/45.99	3/44.61	1/47.06
POLY-3 PERCENT (g)	6.5%	2.2%	2.2%	0.0%	2.3%	4.4%	6.7%	2.1%
TERMINAL (d)	2/41 (5%)	0/38 (0%)	1/42 (2%)	0/43 (0%)	0/33 (0%)	0/35 (0%)	1/38 (3%)	0/42 (0%)
FIRST INCIDENCE	536	697	729 (T)	---	450	506	564	697
<b>STATISTICAL TESTS</b>								
LIFE TABLE	P=0.117N	P=0.317N	P=0.301N	P=0.118N	P=0.453N	P=0.525	P=0.335	P=0.731N
POLY 3	P=0.120N	P=0.307N	P=0.304N	P=0.115N	P=0.469N	P=0.520	P=0.314	P=0.743N
POLY 1.5	P=0.121N	P=0.307N	P=0.305N	P=0.117N	P=0.485N	P=0.514	P=0.310	P=0.751N
POLY 6	P=0.118N	P=0.308N	P=0.304N	P=0.113N	P=0.446N	P=0.525	P=0.322	P=0.731N
LOGISTIC REGRESSION	P=0.129N	P=0.301N	P=0.316N	P=0.134N	P=0.503N	P=0.230	P=0.284	P=0.750
COCH-ARM / FISHERS	P=0.123N	P=0.309N	P=0.309N	P=0.121N	P=0.500N	P=0.500	P=0.309	P=0.753N
ORDER RESTRICTED	P=0.035N*	(e)	(e)	(e)	P=0.446N	(e)	(e)	(e)

Date: 01/31/04

EXPERIMENT: 88004 TEST: 06  
 Statistical Analysis of Primary Tumors in Mice(B6C3F1)  
 Terminal Sacrifice at 105 weeks

Page 14  
 DIVINYLBENZENE

Dose	Males				Females			
	CONTROL	10 PPM	30 PPM	100 PPM	CONTROL	10 PPM	30 PPM	100 PPM
<b>Skin</b>								
Fibrous Histiocytoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	2/50 (4%)	0/50 (0%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)	0/50 (0%)
POLY-3 RATE (b)	2/45.69	0/45.94	1/46.42	0/47.18	0/42.71	0/44.99	0/43.99	0/46.93
POLY-3 PERCENT (g)	4.4%	0.0%	2.2%	0.0%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	2/41 (5%)	0/38 (0%)	1/42 (2%)	0/43 (0%)	0/33 (0%)	0/35 (0%)	0/38 (0%)	0/42 (0%)
FIRST INCIDENCE	729 (T)	---	729 (T)	---	---	---	---	---
STATISTICAL TESTS								
LIFE TABLE	P=0.261N	P=0.255N	P=0.492N	P=0.228N	(e)	(e)	(e)	(e)
POLY 3	P=0.271N	P=0.236N	P=0.495N	P=0.230N	(e)	(e)	(e)	(e)
POLY 1.5	P=0.273N	P=0.237N	P=0.497N	P=0.233N	(e)	(e)	(e)	(e)
POLY 6	P=0.268N	P=0.236N	P=0.492N	P=0.226N	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.261N	(e)	P=0.492N	(e)	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.276N	P=0.247N	P=0.500N	P=0.247N	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.070N	(e)						
<b>Skin</b>								
Sarcoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	2/50 (4%)	3/50 (6%)	1/50 (2%)
POLY-3 RATE (b)	1/46.30	1/46.06	0/46.42	0/47.18	1/43.48	2/45.99	3/44.61	1/47.06
POLY-3 PERCENT (g)	2.2%	2.2%	0.0%	0.0%	2.3%	4.4%	6.7%	2.1%
TERMINAL (d)	0/41 (0%)	0/38 (0%)	0/42 (0%)	0/43 (0%)	0/33 (0%)	0/35 (0%)	1/38 (3%)	0/42 (0%)
FIRST INCIDENCE	536	697	---	---	450	506	564	697
STATISTICAL TESTS								
LIFE TABLE	P=0.321N	P=0.755N	P=0.500N	P=0.500N	P=0.453N	P=0.525	P=0.335	P=0.731N
POLY 3	P=0.323N	P=0.759	P=0.499N	P=0.496N	P=0.469N	P=0.520	P=0.314	P=0.743N
POLY 1.5	P=0.324N	P=0.760	P=0.500N	P=0.498N	P=0.485N	P=0.514	P=0.310	P=0.751N
POLY 6	P=0.322N	P=0.759	P=0.499N	P=0.494N	P=0.446N	P=0.525	P=0.322	P=0.731N
LOGISTIC REGRESSION	P=0.358N	P=0.749N	P=0.566N	P=0.543N	P=0.503N	P=0.230	P=0.284	P=0.750
COCH-ARM / FISHERS	P=0.325N	P=0.753N	P=0.500N	P=0.500N	P=0.500N	P=0.500	P=0.309	P=0.753N
ORDER RESTRICTED	P=0.247N	(e)	(e)	(e)	P=0.446N	(e)	(e)	(e)

Date: 01/31/04

EXPERIMENT: 88004 TEST: 06  
 Statistical Analysis of Primary Tumors in Mice(B6C3F1)  
 Terminal Sacrifice at 105 weeks

Page 15  
 DIVINYLBENZENE

Dose	Males				Females			
	CONTROL	10 PPM	30 PPM	100 PPM	CONTROL	10 PPM	30 PPM	100 PPM
<b>Spleen</b>								
Hemangiosarcoma								
<b>TUMOR RATES</b>								
OVERALL (a)	1/49 (2%)	2/48 (4%)	0/50 (0%)	0/50 (0%)	0/49 (0%)	3/50 (6%)	0/49 (0%)	0/49 (0%)
POLY-3 RATE (b)	1/45.70	2/45.48	0/46.42	0/47.18	0/41.88	3/45.27	0/43.50	0/46.76
POLY-3 PERCENT (g)	2.2%	4.4%	0.0%	0.0%	0.0%	6.6%	0.0%	0.0%
TERMINAL (d)	0/41 (0%)	1/38 (3%)	0/42 (0%)	0/43 (0%)	0/33 (0%)	2/35 (6%)	0/38 (0%)	0/42 (0%)
FIRST INCIDENCE	662	716	---	---	---	656	---	---
<b>STATISTICAL TESTS</b>								
LIFE TABLE	P=0.217N	P=0.485	P=0.495N	P=0.487N	P=0.240N	P=0.131	(e)	(e)
POLY 3	P=0.221N	P=0.498	P=0.497N	P=0.494N	P=0.246N	P=0.133	(e)	(e)
POLY 1.5	P=0.222N	P=0.497	P=0.497N	P=0.495N	P=0.257N	P=0.130	(e)	(e)
POLY 6	P=0.219N	P=0.498	P=0.497N	P=0.492N	P=0.236N	P=0.135	(e)	(e)
LOGISTIC REGRESSION	P=0.223N	P=0.482	P=0.490N	P=0.496N	P=0.269N	P=0.130	(e)	(e)
COCH-ARM / FISHERS	P=0.223N	P=0.492	P=0.495N	P=0.495N	P=0.277N	P=0.125	(e)	(e)
ORDER RESTRICTED	P=0.161N	(e)	(e)	(e)	P=0.158N	(e)	(e)	(e)
<b>Spleen, Forestomach</b>								
Squamous Cell Carcinoma or Papilloma Squamous								
<b>TUMOR RATES</b>								
OVERALL (a)	# 1/50 (2%)	# 1/50 (2%)	# 1/50 (2%)	# 2/50 (4%)	# 0/50 (0%)	# 0/50 (0%)	# 0/50 (0%)	# 0/50 (0%)
POLY-3 RATE (b)	1/45.69	1/45.94	1/46.42	2/47.63	0/42.71	0/44.99	0/43.99	0/46.93
POLY-3 PERCENT (g)	2.2%	2.2%	2.2%	4.2%	0.0%	0.0%	0.0%	0.0%
TERMINAL (d)	1/41 (2%)	1/38 (3%)	1/42 (2%)	1/43 (2%)	0/33 (0%)	0/35 (0%)	0/38 (0%)	0/42 (0%)
FIRST INCIDENCE	729 (T)	729 (T)	729 (T)	598	---	---	---	---
<b>STATISTICAL TESTS</b>								
LIFE TABLE	P=0.389	P=0.745	P=0.756N	P=0.516	(e)	(e)	(e)	(e)
POLY 3	P=0.379	P=0.759N	P=0.757N	P=0.514	(e)	(e)	(e)	(e)
POLY 1.5	P=0.373	P=0.760N	P=0.758N	P=0.508	(e)	(e)	(e)	(e)
POLY 6	P=0.388	P=0.759N	P=0.756N	P=0.522	(e)	(e)	(e)	(e)
LOGISTIC REGRESSION	P=0.361	P=0.745	P=0.756N	P=0.483	(e)	(e)	(e)	(e)
COCH-ARM / FISHERS	P=0.364	P=0.753N	P=0.753N	P=0.500	(e)	(e)	(e)	(e)
ORDER RESTRICTED	P=0.434	(e)						

Date: 01/31/04

EXPERIMENT: 88004 TEST: 06  
 Statistical Analysis of Primary Tumors in Mice(B6C3F1)  
 Terminal Sacrifice at 105 weeks

Page 16

DIVINYLBENZENE

Dose	Males			Females				
	CONTROL	10 PPM	30 PPM	100 PPM	CONTROL	10 PPM	30 PPM	100 PPM
<b>Testes</b>								
Adenoma								
<b>TUMOR RATES</b>								
OVERALL (a)	1/50 (2%)	2/50 (4%)	0/50 (0%)	1/50 (2%)				
POLY-3 RATE (b)	1/45.69	2/45.94	0/46.42	1/47.18				
POLY-3 PERCENT (g)	2.2%	4.4%	0.0%	2.1%				
TERMINAL (d)	1/41 (2%)	2/38 (5%)	0/42 (0%)	1/43 (2%)				
FIRST INCIDENCE	729 (T)	729 (T)	---	729 (T)				
<b>STATISTICAL TESTS</b>								
LIFE TABLE	P=0.551N	P=0.473	P=0.495N	P=0.751N				
POLY 3	P=0.571N	P=0.502	P=0.497N	P=0.753N				
POLY 1.5	P=0.573N	P=0.501	P=0.498N	P=0.756N				
POLY 6	P=0.567N	P=0.502	P=0.495N	P=0.750N				
LOGISTIC REGRESSION	P=0.551N	P=0.473	(e)	P=0.751N				
COCH-ARM / FISHERS	P=0.577N	P=0.500	P=0.500N	P=0.753N				
ORDER RESTRICTED	P=0.370N	(e)	(e)	(e)				
Dose	Males			Females				
	CONTROL	10 PPM	30 PPM	100 PPM	CONTROL	10 PPM	30 PPM	100 PPM
<b>Uterus</b>								
Polyp Stromal								
<b>TUMOR RATES</b>								
OVERALL (a)	#	#	#	#	#	#	#	#
POLY-3 RATE (b)					1/50 (2%)	3/50 (6%)	0/50 (0%)	2/50 (4%)
POLY-3 PERCENT (g)					1/42.71	3/44.99	0/43.99	2/46.93
TERMINAL (d)					2.3%	6.7%	0.0%	4.3%
FIRST INCIDENCE					1/33 (3%)	3/35 (9%)	0/38 (0%)	2/42 (5%)
STATISTICAL TESTS					731 (T)	731 (T)	---	731 (T)
LIFE TABLE					P=0.639N	P=0.326	P=0.472N	P=0.584
POLY 3					P=0.596	P=0.324	P=0.494N	P=0.533
POLY 1.5					P=0.581	P=0.319	P=0.497N	P=0.518
POLY 6					P=0.615	P=0.327	P=0.490N	P=0.551
LOGISTIC REGRESSION					P=0.639N	P=0.326	(e)	P=0.584
COCH-ARM / FISHERS					P=0.563	P=0.309	P=0.500N	P=0.500
ORDER RESTRICTED					P=0.424N	(e)	(e)	(e)

Date: 01/31/04

04 EXPERIMENT: 88004 TEST: 06  
Statistical Analysis of Primary Tumors in Mice(B6C3F1)  
Terminal Sacrifice at 105 weeks

Page 17

DIVINYLBENZENE

TUMOR RATES & STATISTICAL TESTS AT 105 WEEKS										
Dose	Males				Females					
	CONTROL	10 PPM	30 PPM	100 PPM	CONTROL	10 PPM	30 PPM	100 PPM		
<b>All Organs</b>										
Hemangioma										
<b>TUMOR RATES</b>	#	#	#	#	#	#	#	#	#	
OVERALL (a)	0/50 (0%)	2/50 (4%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	0/50 (0%)	1/50 (2%)		
POLY-3 RATE (b)	0/45.69	2/45.94	0/46.42	1/47.18	1/42.80	0/44.99	0/43.99	1/46.93		
POLY-3 PERCENT (g)	0.0%	4.4%	0.0%	2.1%	2.3%	0.0%	0.0%	2.1%		
TERMINAL (d)	0/41 (0%)	2/38 (5%)	0/42 (0%)	1/43 (2%)	0/33 (0%)	0/35 (0%)	0/38 (0%)	1/42 (2%)		
FIRST INCIDENCE	---	729 (T)	---	729 (T)	709	---	---	731 (T)		
<b>STATISTICAL TESTS</b>										
LIFE TABLE	P=0.636	P=0.222	(e)	P=0.510	P=0.578	P=0.484N	P=0.474N	P=0.711N		
POLY 3	P=0.626	P=0.238	(e)	P=0.506	P=0.546	P=0.490N	P=0.495N	P=0.740N		
POLY 1.5	P=0.622	P=0.238	(e)	P=0.504	P=0.540	P=0.493N	P=0.497N	P=0.749N		
POLY 6	P=0.631	P=0.238	(e)	P=0.510	P=0.555	P=0.489N	P=0.491N	P=0.728N		
LOGISTIC REGRESSION	(e)	P=0.222	(e)	P=0.510	P=0.558	P=0.491N	P=0.495N	P=0.741N		
COCH-ARM / FISHERS	P=0.617	P=0.247	(e)	P=0.500	P=0.536	P=0.500N	P=0.500N	P=0.753N		
ORDER RESTRICTED	P=0.326	(e)	(e)	(e)	P=0.376N	(e)	(e)	(e)		
<b>Dose</b>	Males				Females					
	CONTROL	10 PPM	30 PPM	100 PPM	CONTROL	10 PPM	30 PPM	100 PPM		
<b>All Organs</b>										
Hemangiosarcoma										
<b>TUMOR RATES</b>	#	#	#	#	#	#	#	#	#	
OVERALL (a)	6/50 (12%)	2/50 (4%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	3/50 (6%)	0/50 (0%)	0/50 (0%)		
POLY-3 RATE (b)	6/46.36	2/45.99	0/46.42	0/47.18	1/42.79	3/45.27	0/43.99	0/46.93		
POLY-3 PERCENT (g)	12.9%	4.4%	0.0%	0.0%	2.3%	6.6%	0.0%	0.0%		
TERMINAL (d)	4/41 (10%)	1/38 (3%)	0/42 (0%)	0/43 (0%)	0/33 (0%)	2/35 (6%)	0/38 (0%)	0/42 (0%)		
FIRST INCIDENCE	609	716	---	---	711	656	---	---		
<b>STATISTICAL TESTS</b>										
LIFE TABLE	P=0.017N*	P=0.157N	P=0.018N*	P=0.017N*	P=0.138N	P=0.330	P=0.468N	P=0.449N		
POLY 3	P=0.016N*	P=0.136N	P=0.015N*	P=0.014N*	P=0.149N	P=0.326	P=0.495N	P=0.482N		
POLY 1.5	P=0.016N*	P=0.135N	P=0.015N*	P=0.015N*	P=0.155N	P=0.320	P=0.497N	P=0.490N		
POLY 6	P=0.015N*	P=0.138N	P=0.015N*	P=0.014N*	P=0.141N	P=0.330	P=0.491N	P=0.471N		
LOGISTIC REGRESSION	P=0.019N*	P=0.134N	P=0.018N*	P=0.018N*	P=0.159N	P=0.319	P=0.494N	P=0.488N		
COCH-ARM / FISHERS	P=0.019N*	P=0.134N	P=0.013N*	P=0.013N*	P=0.166N	P=0.309	P=0.500N	P=0.500N		
ORDER RESTRICTED	P<0.001N**	(e)	(e)	(e)	P=0.108N	(e)	(e)	(e)		

Date: 01/31/04

EXPERIMENT: 88004 TEST: 06  
 Statistical Analysis of Primary Tumors in Mice(B6C3F1)  
 Terminal Sacrifice at 105 weeks

Page 18  
 DIVINYLBENZENE

Dose	Males				Females			
	CONTROL	10 PPM	30 PPM	100 PPM	CONTROL	10 PPM	30 PPM	100 PPM
<b>All Organs</b>								
Hemangiosarcoma or Hemangioma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	6/50 (12%)	4/50 (8%)	0/50 (0%)	1/50 (2%)	2/50 (4%)	3/50 (6%)	0/50 (0%)	1/50 (2%)
POLY-3 RATE (b)	6/46.36	4/45.99	0/46.42	1/47.18	2/42.88	3/45.27	0/43.99	1/46.93
POLY-3 PERCENT (g)	12.9%	8.7%	0.0%	2.1%	4.7%	6.6%	0.0%	2.1%
TERMINAL (d)	4/41 (10%)	3/38 (8%)	0/42 (0%)	1/43 (2%)	0/33 (0%)	2/35 (6%)	0/38 (0%)	1/42 (2%)
FIRST INCIDENCE	609	716	---	729 (T)	709	656	---	731 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.042N*	P=0.407N	P=0.018N*	P=0.055N	P=0.259N	P=0.530	P=0.208N	P=0.420N
POLY 3	P=0.043N*	P=0.375N	P=0.015N*	P=0.053N	P=0.296N	P=0.525	P=0.231N	P=0.469N
POLY 1.5	P=0.044N*	P=0.373N	P=0.015N*	P=0.055N	P=0.306N	P=0.518	P=0.234N	P=0.483N
POLY 6	P=0.042N*	P=0.380N	P=0.015N*	P=0.052N	P=0.284N	P=0.530	P=0.228N	P=0.452N
LOGISTIC REGRESSION	P=0.046N*	P=0.368N	P=0.018N*	P=0.060N	P=0.298N	P=0.519	P=0.231N	P=0.468N
COCH-ARM / FISHERS	P=0.048N*	P=0.370N	P=0.013N*	P=0.056N	P=0.316N	P=0.500	P=0.247N	P=0.500N
ORDER RESTRICTED	P=0.009N**	(e)	(e)	(e)	P=0.178N	(e)	(e)	(e)
Dose	Males				Females			
	CONTROL	10 PPM	30 PPM	100 PPM	CONTROL	10 PPM	30 PPM	100 PPM
<b>All Organs</b>								
Histiocytic Sarcoma								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	0/50 (0%)	2/50 (4%)	0/50 (0%)
POLY-3 RATE (b)	1/45.69	0/45.94	0/46.42	1/47.63	1/43.43	0/44.99	2/43.99	0/46.93
POLY-3 PERCENT (g)	2.2%	0.0%	0.0%	2.1%	2.3%	0.0%	4.6%	0.0%
TERMINAL (d)	1/41 (2%)	0/38 (0%)	0/42 (0%)	0/43 (0%)	0/33 (0%)	0/35 (0%)	2/38 (5%)	0/42 (0%)
FIRST INCIDENCE	729 (T)	---	---	598	479	---	731 (T)	---
STATISTICAL TESTS								
LIFE TABLE	P=0.548	P=0.515N	P=0.495N	P=0.750N	P=0.404N	P=0.483N	P=0.538	P=0.496N
POLY 3	P=0.544	P=0.499N	P=0.497N	P=0.751N	P=0.422N	P=0.493N	P=0.504	P=0.485N
POLY 1.5	P=0.540	P=0.500N	P=0.498N	P=0.755N	P=0.433N	P=0.495N	P=0.502	P=0.492N
POLY 6	P=0.548	P=0.499N	P=0.495N	P=0.746N	P=0.407N	P=0.492N	P=0.509	P=0.475N
LOGISTIC REGRESSION	P=0.516	(e)	(e)	P=0.745	P=0.447N	P=0.767N	P=0.490	P=0.489N
COCH-ARM / FISHERS	P=0.536	P=0.500N	P=0.500N	P=0.753N	P=0.441N	P=0.500N	P=0.500	P=0.500N
ORDER RESTRICTED	P=0.391N	(e)	(e)	(e)	P=0.311N	(e)	(e)	(e)

Date: 01/31/04

EXPERIMENT: 88004 TEST: 06  
 Statistical Analysis of Primary Tumors in Mice(B6C3F1)  
 Terminal Sacrifice at 105 weeks

Page 19

DIVINYLBENZENE

Dose	Males				Females			
	CONTROL	10 PPM	30 PPM	100 PPM	CONTROL	10 PPM	30 PPM	100 PPM
<b>All Organs</b>								
Malignant Lymphoma: Histiocytic, Lymphocytic, Mixed, NOS, or Undifferentiated Cell Type								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	1/50 (2%)	0/50 (0%)	1/50 (2%)	1/50 (2%)	11/50 (22%)	10/50 (20%)	5/50 (10%)	1/50 (2%)
POLY-3 RATE (b)	1/45.69	0/45.94	1/46.42	1/47.18	11/44.81	10/46.74	5/44.70	1/46.93
POLY-3 PERCENT (g)	2.2%	0.0%	2.2%	2.1%	24.6%	21.4%	11.2%	2.1%
TERMINAL (d)	1/41 (2%)	0/38 (0%)	1/42 (2%)	1/43 (2%)	5/33 (15%)	5/35 (14%)	2/38 (5%)	1/42 (2%)
FIRST INCIDENCE	729 (T)	---	729 (T)	729 (T)	386	550	550	731 (T)
STATISTICAL TESTS								
LIFE TABLE	P=0.580	P=0.515N	P=0.756N	P=0.751N	P<0.001N**	P=0.448N	P=0.071N	P<0.001N**
POLY 3	P=0.569	P=0.499N	P=0.757N	P=0.753N	P<0.001N**	P=0.456N	P=0.083N	P<0.001N**
POLY 1.5	P=0.565	P=0.500N	P=0.758N	P=0.756N	P<0.001N**	P=0.468N	P=0.084N	P=0.002N**
POLY 6	P=0.574	P=0.499N	P=0.756N	P=0.750N	P<0.001N**	P=0.450N	P=0.081N	P<0.001N**
LOGISTIC REGRESSION	P=0.580	(e)	P=0.756N	P=0.751N	P=0.002N**	P=0.554N	P=0.089N	P=0.003N**
COCH-ARM / FISHERS	P=0.559	P=0.500N	P=0.753N	P=0.753N	P=0.002N**	P=0.500N	P=0.086N	P=0.002N**
ORDER RESTRICTED	P=0.542	(e)	(e)	(e)	P<0.001N**	(e)	(e)	(e)
Dose	Males				Females			
	CONTROL	10 PPM	30 PPM	100 PPM	CONTROL	10 PPM	30 PPM	100 PPM
<b>All Organs</b>								
Benign Tumors								
TUMOR RATES	#	#	#	#	#	#	#	#
OVERALL (a)	35/50 (70%)	24/50 (48%)	21/50 (42%)	27/50 (54%)	28/50 (56%)	21/50 (42%)	14/50 (28%)	19/50 (38%)
POLY-3 RATE (b)	35/47.30	24/47.58	21/47.55	27/47.81	28/44.18	21/45.86	14/44.08	19/47.09
POLY-3 PERCENT (g)	74.0%	50.4%	44.2%	56.5%	63.4%	45.8%	31.8%	40.4%
TERMINAL (d)	32/41 (78%)	19/38 (50%)	18/42 (43%)	25/43 (58%)	22/33 (67%)	17/35 (49%)	13/38 (34%)	17/42 (41%)
FIRST INCIDENCE	456	543	526	598	596	537	709	697
STATISTICAL TESTS								
LIFE TABLE	P=0.182N	P=0.057N	P=0.004N**	P=0.041N*	P=0.021N*	P=0.074N	P<0.001N**	P=0.005N**
POLY 3	P=0.279N	P=0.012N*	P=0.002N**	P=0.052N	P=0.077N	P=0.066N	P=0.002N**	P=0.020N*
POLY 1.5	P=0.290N	P=0.015N*	P=0.002N**	P=0.061N	P=0.100N	P=0.076N	P=0.002N**	P=0.031N*
POLY 6	P=0.261N	P=0.010N*	P<0.001N**	P=0.041N*	P=0.054N	P=0.063N	P=0.002N**	P=0.013N*
LOGISTIC REGRESSION	P=0.260N	P=0.019N*	P=0.003N**	P=0.047N*	P=0.044N*	P=0.060N	P<0.001N**	P=0.012N*
COCH-ARM / FISHERS	P=0.306N	P=0.021N*	P=0.004N**	P=0.074N	P=0.131N	P=0.115N	P=0.004N**	P=0.054N
ORDER RESTRICTED	P=0.011N*	(e)	(e)	(e)	P=0.004N**	(e)	(e)	(e)

Date: 01/31/04

EXPERIMENT: 88004 TEST: 06  
 Statistical Analysis of Primary Tumors in Mice(B6C3F1)  
 Terminal Sacrifice at 105 weeks

Page 20  
 DIVINYLBENZENE

Dose	Males				Females			
	CONTROL	10 PPM	30 PPM	100 PPM	CONTROL	10 PPM	30 PPM	100 PPM
<b>All Organs</b>								
<b>Malignant Tumors</b>								
<b>TUMOR RATES</b>	#	#	#	#	#	#	#	#
OVERALL (a)	26/50 (52%)	21/50 (42%)	14/50 (28%)	23/50 (46%)	22/50 (44%)	29/50 (58%)	19/50 (38%)	13/50 (26%)
POLY-3 RATE (b)	26/48.60	21/48.86	14/48.87	23/49.20	22/47.00	29/49.13	19/46.60	13/47.07
POLY-3 PERCENT (g)	53.5%	43.0%	28.7%	46.8%	46.8%	59.0%	40.8%	27.6%
TERMINAL (d)	19/41 (46%)	11/38 (29%)	9/42 (21%)	18/43 (42%)	10/33 (30%)	18/35 (51%)	12/38 (32%)	11/42 (26%)
FIRST INCIDENCE	536	338	479	533	386	506	501	697
<b>STATISTICAL TESTS</b>								
LIFE TABLE	P=0.424N	P=0.309N	P=0.019N*	P=0.293N	P=0.002N**	P=0.240	P=0.240N	P=0.016N*
POLY 3	P=0.520N	P=0.202N	P=0.009N**	P=0.322N	P=0.004N**	P=0.158	P=0.352N	P=0.041N*
POLY 1.5	P=0.528N	P=0.204N	P=0.010N*	P=0.330N	P=0.004N**	P=0.144	P=0.349N	P=0.044N*
POLY 6	P=0.511N	P=0.203N	P=0.010N*	P=0.314N	P=0.003N**	P=0.169	P=0.352N	P=0.038N*
LOGISTIC REGRESSION	P=0.500	P=0.215N	P=0.013N*	P=0.379N	P=0.005N**	P=0.084	P=0.353N	P=0.048N*
COCH-ARM / FISHERS	P=0.537N	P=0.212N	P=0.012N*	P=0.345N	P=0.005N**	P=0.115	P=0.342N	P=0.046N*
ORDER RESTRICTED	P=0.084N	(e)	(e)	(e)	P=0.007N**	(e)	(e)	(e)
<b>All Organs</b>								
<b>Malignant and Benign Tumors</b>								
<b>TUMOR RATES</b>	#	#	#	#	#	#	#	#
OVERALL (a)	43/50 (86%)	38/50 (76%)	29/50 (58%)	41/50 (82%)	40/50 (80%)	40/50 (80%)	26/50 (52%)	26/50 (52%)
POLY-3 RATE (b)	43/49.36	38/50.00	29/50.00	41/49.20	40/47.46	40/50.00	26/46.60	26/47.10
POLY-3 PERCENT (g)	87.1%	76.0%	58.0%	83.3%	84.3%	80.0%	55.8%	55.2%
TERMINAL (d)	35/41 (85%)	26/38 (68%)	21/42 (50%)	36/43 (84%)	27/33 (82%)	25/35 (71%)	19/38 (50%)	23/42 (55%)
FIRST INCIDENCE	456	338	479	533	386	506	501	697
<b>STATISTICAL TESTS</b>								
LIFE TABLE	P=0.423N	P=0.377N	P=0.009N**	P=0.276N	P<0.001N**	P=0.409N	P=0.003N**	P<0.001N**
POLY 3	P=0.409	P=0.120N	P<0.001N**	P=0.403N	P<0.001N**	P=0.387N	P=0.002N**	P<0.001N**
POLY 1.5	P=0.421	P=0.132N	P<0.001N**	P=0.401N	P<0.001N**	P=0.455N	P=0.002N**	P=0.002N**
POLY 6	P=0.400	P=0.110N	P<0.001N**	P=0.401N	P<0.001N**	P=0.330N	P=0.002N**	P<0.001N**
LOGISTIC REGRESSION	P=0.407	P=0.156N	P=0.002N**	P=0.374N	P<0.001N**	P=0.577N	P=0.002N**	P<0.001N**
COCH-ARM / FISHERS	P=0.450	P=0.154N	P=0.002N**	P=0.393N	P<0.001N**	P=0.598N	P=0.003N**	P=0.003N**
ORDER RESTRICTED	P=0.033N*	(e)	(e)	(e)	P<0.001N**	(e)	(e)	(e)

(a) Number of tumor-bearing animals / number of animals examined at site.

(b) Number of tumor-bearing animals / Poly-3 number

(d) Observed incidence at terminal kill.

(f) Beneath the control incidence are the P-values associated with the trend test. Beneath the dosed group incidence are the P-values corresponding to pairwise comparisons between the controls and that dosed group. The life table analysis regards tumors in animals dying prior to terminal kill as being (directly or indirectly) the cause of death.

Logistic regression is an alternative

method for analyzing the incidence of non-fatal tumors. The Cochran-Armitage and Fishers exact tests compare directly the overall incidence rates

For all tests a negative trend is indicated by N

(e) Value of Statistic cannot be computed.

(g) Poly-3 adjusted lifetime tumor incidence.

(I) Interim sacrifice

(T) Terminal sacrifice

# Tumor rates based on number of animals necropsied.

\* To the right of any statistical result, indicates significance at ( $P \leq 0.05$ ).

\*\* To the right of any statistical result, indicates significance at ( $P \leq 0.01$ ).

NTP Experiment-Test: 88004-06  
Study Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
WITH AVERAGE SEVERITY GRADES (b)  
DIVINYLBENZENE

Report: PEIRPT18  
Date: 01/31/04  
Time: 15:15:46

Facility: Battelle Northwest

Chemical CAS #: 1321-74-0

Lock Date: 06/17/02

Cage Range: All

Reasons For Removal: All

Removal Date Range: All

Treatment Groups: Include All

a Number of animals examined microscopically at site and number of animals with lesion  
b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

NTP Experiment-Test: 88004-06  
Study Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
WITH AVERAGE SEVERITY GRADES[b]  
DIVINYLBENZENE

Report: PEIRPT18  
Date: 01/31/04  
Time: 15:15:46

B6C3F1 MICE FEMALE	CONTROL	10 PPM	30 PPM	100 PPM
DISPOSITION SUMMARY				
Animals Initially In Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	11	12	8	7
Natural Death	6	3	3	1
Accidentally Killed			1	
Survivors				
Terminal Sacrifice	33	35	38	42
Animals Examined Microscopically	50	50	50	50
ALIMENTARY SYSTEM				
Esophagus	(50)	(50)	(50)	(50)
Infiltration Cellular, Mixed Cell				1 [3.0]
Gallbladder	(45)	(41)	(36)	(41)
Hemorrhage, Chronic	1 [3.0]			
Inflammation, Acute			1 [3.0]	
Inflammation, Chronic				1 [2.0]
Intestine Large, Rectum	(46)	(48)	(50)	(50)
Artery, Inflammation, Chronic Active	1 [3.0]			
Liver	(49)	(50)	(50)	(50)
Angiectasis	1 [1.0]			
Basophilic Focus	4	2		2
Clear Cell Focus	4	2	3	
Eosinophilic Focus	12	8	3	4
Fatty Change	2 [2.0]	1 [2.0]		
Hematopoietic Cell Proliferation		1 [4.0]	1 [3.0]	1 [2.0]
Infarct	1			
Inflammation, Acute			1 [3.0]	
Inflammation, Chronic				1 [2.0]
Inflammation, Granulomatous	1 [3.0]		1 [1.0]	
Mixed Cell Focus				1
Necrosis	1 [2.0]		3 [2.0]	1 [3.0]
Tension Lipidosis	1 [2.0]	5 [1.4]	2 [1.5]	4 [1.5]
Vacuolization Cytoplasmic, Focal				1 [3.0]
Centrilobular, Hypertrophy	1 [3.0]			
Mesentery	(17)	(16)	(4)	(5)
Artery, Inflammation, Chronic Active	1 [2.0]			
Fat, Congestion		1 [2.0]		
Fat, Hemorrhage			1 [2.0]	
Fat, Necrosis	17 [2.0]	15 [2.0]	3 [2.0]	5 [2.0]

a Number of animals examined microscopically at site and number of animals with lesion

b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

NTP Experiment-Test: 88004-06  
Study Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
WITH AVERAGE SEVERITY GRADES(b)  
DIVINYLBENZENE

Report: PEIRPT18  
Date: 01/31/04  
Time: 15:15:46

B6C3F1 MICE FEMALE	CONTROL	10 PPM	30 PPM	100 PPM
ALIMENTARY SYSTEM - CONT				
Pancreas	(48)	(50)	(50)	(50)
Atrophy		2 [4.0]	1 [4.0]	
Basophilic Focus			1 [2.0]	
Duct, Cyst			2 [4.0]	
Stomach, Forestomach	(50)	(50)	(50)	(50)
Hyperplasia, Squamous	3 [1.7]	5 [2.2]		1 [2.0]
Inflammation, Chronic Active	1 [1.0]			2 [2.0]
Ulcer		1 [2.0]	1 [1.0]	
Stomach, Glandular	(49)	(50)	(49)	(49)
Hemorrhage		1 [2.0]		
Necrosis	1 [2.0]			
Tooth	(9)	(13)	(8)	(15)
Incisor, Dysplasia	9 [1.7]	13 [1.7]	8 [1.5]	15 [1.7]
CARDIOVASCULAR SYSTEM				
Blood Vessel	(1)			
Aorta, Mineralization	1 [2.0]			
Heart	(50)	(50)	(50)	(50)
Cardiomyopathy	3 [1.0]	6 [1.0]	1 [1.0]	1 [1.0]
Infiltration Cellular, Polymorphonuclear			1 [2.0]	
Inflammation, Suppurative		1 [2.0]		
Mineralization	1 [1.0]	1 [2.0]		1 [1.0]
Necrosis			1 [2.0]	
Thrombosis		1 [3.0]		
Artery, Inflammation, Chronic Active	2 [2.0]			
ENDOCRINE SYSTEM				
Adrenal Cortex	(50)	(50)	(50)	(50)
Hematopoietic Cell Proliferation		1 [3.0]		
Hyperplasia	1 [3.0]	2 [2.0]	5 [2.2]	4 [2.0]
Hypertrophy		3 [2.0]	2 [1.0]	8 [2.0]
Adrenal Medulla	(49)	(50)	(49)	(50)
Hyperplasia	1 [2.0]	1 [2.0]		2 [2.0]
Necrosis	1 [2.0]			
Islets, Pancreatic	(48)	(49)	(49)	(50)
Hyperplasia			1 [3.0]	
Pituitary Gland	(47)	(50)	(49)	(45)
Cyst				1 [2.0]
Pars Distalis, Angiectasis	3 [2.0]			

a Number of animals examined microscopically at site and number of animals with lesion

b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

NTP Experiment-Test: 88004-06

Study Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
WITH AVERAGE SEVERITY GRADES(b)  
DIVINYLBENZENE

Report: PEIRPT18  
Date: 01/31/04  
Time: 15:15:46

B6C3F1 MICE FEMALE	CONTROL	10 PPM	30 PPM	100 PPM
<hr/>				
ENDOCRINE SYSTEM - CONT				
Pars Distalis, Hyperplasia	8 [2.4] (49)	16 [2.1] (49)	6 [1.7] (50)	5 [2.2] (48)
Thyroid Gland				
C-Cell, Hyperplasia		1 [1.0]		
Follicular Cell, Hyperplasia	1 [2.0]	2 [3.0]		1 [1.0]
<hr/>				
GENERAL BODY SYSTEM				
None				
<hr/>				
GENITAL SYSTEM				
Ovary	(48)	(50)	(49)	(49)
Angiectasis	2 [2.5]	3 [2.7]		
Cyst	9 [2.1]	14 [2.5]	10 [2.6]	9 [2.2]
Inflammation, Acute			1 [4.0]	
Mineralization	1 [2.0]			
Necrosis			1 [4.0]	
Thrombosis				1 [3.0]
Uterus	(49)	(50)	(50)	(49)
Angiectasis		1 [3.0]	2 [3.0]	1 [4.0]
Endometrium, Hyperplasia, Cystic	2 [3.0]	8 [3.8]	5 [2.8]	8 [3.3]
<hr/>				
HEMATOPOIETIC SYSTEM				
Lymph Node	(9)	(3)	(5)	(2)
Ectasia	1 [3.0]			
Deep Cervical, Hyperplasia, Lymphoid	1 [4.0]			
Deep Cervical, Infiltration Cellular, Plasma Cell				1 [3.0]
Iliac, Angiectasis				1 [3.0]
Iliac, Ectasia	1 [3.0]			
Lumbar, Angiectasis			1 [3.0]	
Renal, Angiectasis			1 [3.0]	
Lymph Node, Mesenteric	(49)	(50)	(49)	(49)
Angiectasis	1 [3.0]			
Ectasia			1 [3.0]	
Inflammation, Granulomatous		1 [2.0]		
Spleen	(49)	(50)	(49)	(49)
Hematopoietic Cell Proliferation	3 [2.7]	3 [3.0]	3 [2.7]	1 [3.0]
Inflammation, Acute			1 [3.0]	

a Number of animals examined microscopically at site and number of animals with lesion

b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

NTP Experiment-Test: 88004-06  
Study Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
WITH AVERAGE SEVERITY GRADES(b)  
DIVINYLBENZENE

Report: PEIRPT18  
Date: 01/31/04  
Time: 15:15:46

B6C3F1 MICE FEMALE	CONTROL	10 PPM	30 PPM	100 PPM
HEMATOPOIETIC SYSTEM - CONT				
Necrosis			1 [3.0]	
Sinusoid, Dilatation			1 [3.0]	
INTEGUMENTARY SYSTEM				
Skin				
Inflammation, Chronic Active	(50)	(50)	(50)	(50)
	3 [1.7]	2 [3.5]		1 [4.0]
MUSCULOSKELETAL SYSTEM				
None				
NERVOUS SYSTEM				
Brain				
Degeneration, Focal	(50)	(50)	(50)	(50)
Hemorrhage			1 [2.0]	1 [2.0]
Meninges, Infiltration Cellular, Mononuclear				
Cell	1 [1.0]	1 [2.0]		
RESPIRATORY SYSTEM				
Larynx				
Hyperplasia, Squamous	(48)	(50)	(50)	(49)
Inflammation, Suppurative		1 [2.0]		1 [2.0]
Lung				
Hemorrhage	(50)	(50)	(50)	(49)
Infiltration Cellular, Polymorphonuclear	1 [1.0]		1 [2.0]	1 [2.0]
Inflammation, Acute			1 [2.0]	
Thrombosis			1 [2.0]	
Alveolar Epithelium, Hyperplasia	4 [1.8]	3 [1.7]	4 [2.3]	8 [2.5]
Alveolus, Granuloma			1 [1.0]	
Alveolus, Infiltration Cellular, Histiocyte	3 [1.0]	6 [1.0]	9 [1.1]	17 [1.2]
Bronchiole, Hyperplasia				1 [4.0]
Bronchiole, Hyperplasia, Atypical		39 [1.3]	45 [1.8]	48 [2.1]
Nose				
Inflammation, Suppurative	(50)	(50)	(50)	(49)
Glands, Respiratory Epithelium, Metaplasia	1 [1.0]	50 [1.7]	49 [2.0]	49 [2.4]
Olfactory Epithelium, Atrophy	3 [1.0]	50 [3.1]	50 [3.6]	49 [4.0]
	8 [1.1]			

a Number of animals examined microscopically at site and number of animals with lesion

b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

NTP Experiment-Test: 88004-06  
Study Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
WITH AVERAGE SEVERITY GRADES(b)  
DIVINYLBENZENE

Report: PEIRPT18  
Date: 01/31/04  
Time: 15:15:46

B6C3F1 MICE FEMALE	CONTROL	10 PPM	30 PPM	100 PPM
RESPIRATORY SYSTEM - CONT				
Olfactory Epithelium, Degeneration, Hyaline	2 [1.5]	50 [2.4]	40 [1.8]	8 [1.6]
Olfactory Epithelium, Respiratory Epithelium, Metaplasia	(49)	50 [3.1] (50)	50 [3.9] (50)	49 [3.9] (50)
Trachea Inflammation, Suppurative		1 [2.0]		
SPECIAL SENSES SYSTEM				
Eye	(50)	(50)	(50)	(49)
Cataract	1 [3.0]	2 [2.5]		1 [2.0]
Inflammation				1 [2.0]
Phthisis Bulbi	1 [4.0]	1 [3.0]	1 [2.0]	
Cornea, Hyperplasia, Squamous				
Cornea, Inflammation, Chronic Active	1 [2.0]	3 [2.3]	3 [3.0]	
Cornea, Inflammation, Suppurative				1 [3.0]
Cornea, Mineralization				6 [1.0]
Harderian Gland	(50)	(50)	(50)	(50)
Hyperplasia	1 [3.0]	4 [2.5]	2 [2.0]	3 [2.3]
Inflammation, Chronic Active	1 [4.0]			
URINARY SYSTEM				
Kidney	(49)	(50)	(50)	(50)
Amyloid Deposition		1 [3.0]		
Infarct			1 [4.0]	
Inflammation, Suppurative		2 [2.5]	2 [3.5]	
Metaplasia, Osseous	2 [1.5]	3 [1.3]	3 [1.0]	1 [1.0]
Mineralization	1 [1.0]			
Nephropathy	25 [1.3]	31 [1.3]	22 [1.2]	17 [1.1]
Artery, Inflammation, Chronic Active				1 [2.0]
Urinary Bladder	(49)	(50)	(50)	(49)
Inflammation, Suppurative			1 [2.0]	
Artery, Inflammation, Chronic Active	1 [2.0]			

a Number of animals examined microscopically at site and number of animals with lesion

b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

NTP Experiment-Test: 88004-06

Study Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
WITH AVERAGE SEVERITY GRADES(b)  
DIVINYLBENZENE

Report: PEIRPT18  
Date: 01/31/04  
Time: 15:15:46

B6C3F1 MICE MALE	CONTROL	10 PPM	30 PPM	100 PPM
<b>DISPOSITION SUMMARY</b>				
Animals Initially In Study	50	50	50	50
Early Deaths				
Moribund Sacrifice	7	6	5	4
Natural Death	2	6	3	3
Survivors				
Terminal Sacrifice	41	38	42	43
Animals Examined Microscopically	50	50	50	50
<b>ALIMENTARY SYSTEM</b>				
Liver	(50)	(50)	(50)	(50)
Angiectasis				1 [1.0]
Basophilic Focus	3	6	7	4
Clear Cell Focus	9	11	6	5
Eosinophilic Focus	8	7		2
Fatty Change		2 [1.5]	1 [2.0]	
Infarct	2		1	
Inflammation, Granulomatous	1 [1.0]			
Mineralization	1 [1.0]			
Mixed Cell Focus	2	1	2	1
Necrosis	1 [1.0]	2 [1.5]	2 [3.0]	2 [3.0]
Tension Lipidosis	2 [2.0]	1 [2.0]	2 [1.5]	1 [2.0]
Vacuolization Cytoplasmic, Focal	2 [2.5]			
Mesentery	(11)	(4)	(4)	(5)
Fat, Necrosis	10 [2.0]	4 [2.0]	4 [2.0]	5 [2.0]
Pancreas	(49)	(48)	(50)	(50)
Duct, Cyst	2 [3.5]			
Stomach, Forestomach	(49)	(50)	(49)	(50)
Hyperplasia, Squamous	1 [2.0]	4 [2.5]	2 [1.0]	4 [2.3]
Inflammation		1 [2.0]		
Inflammation, Acute		2 [1.5]		1 [1.0]
Inflammation, Chronic Active	1 [2.0]	1 [2.0]		3 [2.3]
Mineralization				1 [1.0]
Ulcer		2 [2.5]	1 [2.0]	1 [3.0]
Stomach, Glandular	(48)	(48)	(47)	(49)
Inflammation, Acute		1 [1.0]		
Mineralization		1 [2.0]		
Necrosis		1 [2.0]		1 [1.0]
Tooth	(41)	(43)	(41)	(35)
Incisor, Dysplasia	41 [2.2]	43 [2.6]	41 [2.5]	35 [2.3]

a Number of animals examined microscopically at site and number of animals with lesion

b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

NTP Experiment-Test: 88004-06  
Study Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
WITH AVERAGE SEVERITY GRADES(b)  
DIVINYLBENZENE

Report: PEIRPT18  
Date: 01/31/04  
Time: 15:15:46

B6C3F1 MICE MALE	CONTROL	10 PPM	30 PPM	100 PPM
<hr/>				
CARDIOVASCULAR SYSTEM				
Heart	(50)	(49)	(50)	(50)
Cardiomyopathy	14 [1.1]	5 [1.0]	5 [1.0]	5 [1.0]
Mineralization	1 [1.0]	1 [1.0]		
Artery, Inflammation, Chronic Active	1 [3.0]			
<hr/>				
ENDOCRINE SYSTEM				
Adrenal Cortex	(49)	(49)	(50)	(50)
Hyperplasia	9 [2.0]	10 [1.9]	6 [1.7]	5 [2.0]
Hypertrophy	24 [2.0]	25 [1.9]	26 [2.0]	24 [1.6]
Adrenal Medulla	(49)	(49)	(50)	(50)
Hyperplasia	1 [2.0]	2 [2.0]		2 [2.5]
Parathyroid Gland	(35)	(39)	(36)	(35)
Hyperplasia			1 [3.0]	
Pituitary Gland	(48)	(47)	(47)	(46)
Cyst		1 [3.0]		
Pars Distalis, Hyperplasia	2 [2.5]	1 [2.0]	2 [1.5]	1 [1.0]
Thyroid Gland	(49)	(49)	(50)	(50)
Follicular Cell, Hyperplasia		2 [1.5]	1 [3.0]	
<hr/>				
GENERAL BODY SYSTEM				
None				
<hr/>				
GENITAL SYSTEM				
Epididymis	(50)	(50)	(50)	(50)
Granuloma Sperm	1 [2.0]	2 [1.5]		
Penis			(1)	
Inflammation, Acute			1 [4.0]	
Preputial Gland	(50)	(50)	(50)	(50)
Ectasia	1 [2.0]	3 [2.3]	2 [3.0]	1 [3.0]
Inflammation, Chronic Active			2 [3.0]	
Seminal Vesicle	(49)	(48)	(50)	(49)
Inflammation, Chronic		1 [3.0]		
Testes	(50)	(50)	(50)	(50)
Atrophy	2 [3.0]			
Mineralization	1 [4.0]			

a Number of animals examined microscopically at site and number of animals with lesion

b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

NTP Experiment-Test: 88004-06  
Study Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
WITH AVERAGE SEVERITY GRADES(b)  
DIVINYLBENZENE

Report: PEIRPT18  
Date: 01/31/04  
Time: 15:15:46

B6C3F1 MICE MALE	CONTROL	10 PPM	30 PPM	100 PPM
GENITAL SYSTEM - CONT				
Interstitial Cell, Hyperplasia			1 [2.0]	
HEMATOPOIETIC SYSTEM				
Bone Marrow	(50)	(48)	(50)	(50)
Necrosis	1 [4.0]			
Spleen	(49)	(48)	(50)	(50)
Hematopoietic Cell Proliferation	1 [3.0]		1 [2.0]	
INTEGUMENTARY SYSTEM				
Skin	(50)	(50)	(50)	(50)
Cyst Epithelial Inclusion	1 [3.0]			
Inflammation, Chronic Active	3 [2.0]	1 [1.0]		2 [3.5]
Inflammation, Granulomatous				1 [2.0]
Subcutaneous Tissue, Cyst Epithelial Inclusion		1		
MUSCULOSKELETAL SYSTEM				
None				
NERVOUS SYSTEM				
Brain	(50)	(50)	(50)	(50)
Necrosis, Focal	1 [2.0]			
Artery, Inflammation, Chronic Active	1 [2.0]			
RESPIRATORY SYSTEM				
Larynx	(50)	(50)	(50)	(50)
Inflammation, Suppurative	1 [3.0]			
Lung	(49)	(49)	(49)	(49)
Hemorrhage	1 [2.0]			1 [4.0]
Mineralization		1 [2.0]		
Alveolar Epithelium, Hyperplasia	1 [1.0]	5 [3.2]	5 [2.0]	7 [2.0]
Alveolus, Infiltration Cellular, Histiocyte	2 [1.5]	4 [1.0]	5 [1.0]	1 [1.0]
Bronchiole, Hyperplasia			1 [1.0]	

a Number of animals examined microscopically at site and number of animals with lesion

b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

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Study Type: CHRONIC  
Route: RESPIRATORY EXPOSURE WHOLE BODY

INCIDENCE RATES OF NONNEOPLASTIC LESIONS BY ANATOMIC SITE (a)  
WITH AVERAGE SEVERITY GRADES(b)  
DIVINYLBENZENE

Report: PEIRPT18  
Date: 01/31/04  
Time: 15:15:46

B6C3F1 MICE MALE	CONTROL	10 PPM	30 PPM	100 PPM
RESPIRATORY SYSTEM - CONT				
Bronchiole, Hyperplasia, Atypical		38 [1.1]	46 [1.8]	46 [1.9]
Bronchiole, Inflammation, Chronic Active		(50)	(50)	1 [3.0]
Nose				(50)
Inflammation, Suppurative		3 [1.0]	47 [1.4]	49 [1.9]
Glands, Necrosis			1 [2.0]	
Glands, Respiratory Epithelium, Metaplasia	12 [1.0]	50 [2.9]	49 [4.0]	50 [3.9]
Olfactory Epithelium, Atrophy	14 [1.1]			
Olfactory Epithelium, Degeneration, Hyaline	5 [1.0]	50 [1.9]	48 [1.8]	11 [1.1]
Olfactory Epithelium, Respiratory Epithelium, Metaplasia	1 [2.0]	50 [3.1]	49 [4.0]	50 [3.9]
Respiratory Epithelium, Metaplasia, Squamous				1 [2.0]
Sinus, Foreign Body			1	
SPECIAL SENSES SYSTEM				
Eye	(49)	(47)	(47)	(50)
Phthisis Bulbi			1 [4.0]	1 [3.0]
Cornea, Inflammation, Chronic Active		2 [2.0]	1 [3.0]	1 [2.0]
Cornea, Mineralization				2 [1.0]
Harderian Gland	(50)	(49)	(50)	(50)
Hyperplasia	2 [2.0]	2 [2.0]	3 [2.7]	2 [1.5]
URINARY SYSTEM				
Kidney	(50)	(50)	(50)	(50)
Cyst	1 [2.0]		2 [2.0]	
Infarct	1 [3.0]	2 [2.5]	1 [2.0]	
Inflammation, Suppurative	1 [2.0]			
Metaplasia, Osseous	7 [1.0]	3 [1.0]	5 [1.0]	1 [1.0]
Nephropathy	45 [1.6]	43 [1.5]	40 [1.3]	34 [1.3]
Capsule, Fibrosis	1 [1.0]			
Papilla, Necrosis	1 [2.0]			
Pelvis, Dilatation		1 [2.0]		
Renal Tubule, Hyperplasia	2 [1.0]	1 [1.0]		
Renal Tubule, Necrosis				1 [2.0]
Urinary Bladder	(48)	(48)	(49)	(49)
Transitional Epithelium, Hyperplasia	1 [3.0]			

a Number of animals examined microscopically at site and number of animals with lesion

b Average severity grade (1-minimal;2-mild;3-moderate;4-marked)

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END OF REPORT  
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